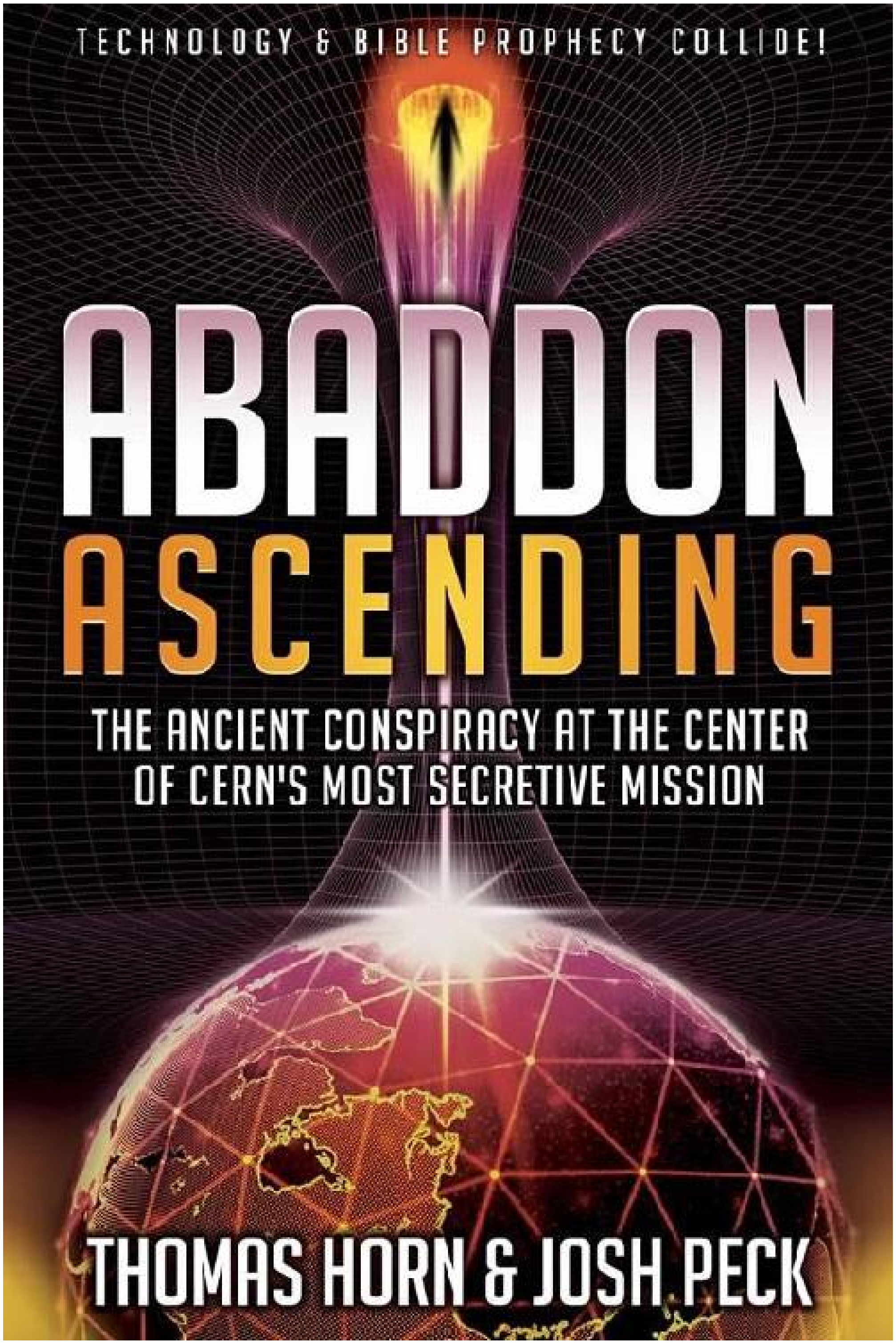
TECHNOLOGY & BIBLE PROPHECY COLLIDE!

ABADDON ASCENDING

THE ANCIENT CONSPIRACY AT THE CENTER OF CERN'S MOST SECRETIVE MISSION

THOMAS HORN & JOSH PECK



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The Ancient Conspiracy at the Center of CERN’s Most Secretive Mission

Includes Interviews with:

Professor Don Page

Gonzo Shimura

Foreword by Dr. Michael Lake

Afterword by Sharon K. Gilbert

Thomas Horn & Josh Peck

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Acknowledgments

This book is dedicated to all the great people in my life who work every day to assist in the research at Sky Watch TV and Defender Publishing. Special thanks to Donna Howell for her

tireless work to uncover material facts and to make me sound better than I am.

—Tom Horn

This book is dedicated to my amazing wife Christina, my two beautiful children Jaklynn and Nathan, and my brother Cody Peck.

—Josh Peck

Foreword by Dr. Michael Lake

There was a time in earth's history when science and sorcery were one. The practitioners of the Mystery Religions longingly refer to it as the Golden Age. Some in-the-know secular humanists would call it prehistory. However, the Bible-believing Christians know this dreadfully dark period in human history by another name: the Antediluvian Age. Within that time period,

humanity had become so corrupt (spiritually, mentally, and genetically) that Almighty God had to intervene by eradicating it from the earth through the judgment Flood of Noah.

Since the beginning of the twentieth century, dark forces have been whispering in the

ears of the Luciferian Elite. With each round of unholy communication, both technology and spiritual darkness expanded within humanity at an unprecedented rate. Today, technology and its sinister masters reach into every aspect of life on planet earth. This question must be asked:

"What are they seeking?" The answer to this question is not as simple as it seems. The casual observer would answer: advanced technology, control, and power. However, I was not referring to the councils of the wicked who labor in the shadows. I am referring to those who whisper beyond a multidimensional veil. These agents of wickedness and corruption want one thing:

freedom from the Creator's incarceration!

There is much speculation regarding the true purposes of the Large Hadron Collider at

CERN. In Luciferian fashion, their press releases state that they are simply exploring the mysteries of the universe. However, the symbolism they display in plain sight provides another narrative altogether. These secular scientists have chosen Shiva the Destroyer, the ancient Hindu god that possesses the ability to deconstruct the universe at the quantum level, as their mascot.

Are the Elite providing clues to the true nature of the research being conducted at CERN?

Now entering into this discussion are two brave souls: Dr. Thomas Horn and Josh Peck.

This investigative dream team possesses expertise in Bible prophecy, the supernatural, spiritual warfare, and physics. These veteran researchers and best-selling authors are about to take you on a journey of discovery, with the nexus where techno-sorcery and end-time prophecy converge.

Are we about to enter into a time Jesus warned us about? Are the times of Noah about to

be revealed once again upon the stage of history? Read on, my friends, and discover for yourself!

Dr. Michael K. Lake

Author, ***The Shinar Directive: Preparing the Way for the Son of Perdition*** and ***The***

Sheeriyth Imperative: Empowering the Remnant to Overcome the Gates of Hell

Introduction

In 2008, tragedy struck in Indore, India. A girl named Chaya, only sixteen years of age, decided to take her own life for fear of what turning on the Large Hadron Collider (LHC) at CERN

would bring against the world.[1] Chaya had been watching certain news reports on Indian

channels that were prophesying the end of the world and sensationalizing what the LHC would do. Chaya poisoned herself rather than see her village be torn apart and the people she loved die.

At the heart of this tragedy is a profound misunderstanding of what the LHC is, what it

does, and how it works. Had Chaya had access to the correct information, perhaps she would not have been frightened into suicide. Ultimately, it is up to each and every one of us to remain informed for ourselves and for our children. The unfortunate thing in this case is the girl's father, Bihari Lal, tried to reason with her by telling her there was nothing to fear. However, Chaya had already seen the news reports at a neighbor's house and was already convinced.

We will first examine some of the more popular ideas that can be found on the Internet

and other popular outlets concerning the supposed secrets behind CERN. We will talk with a private researcher with unique ideas and explanations of the evidence. It is important to examine these first so we can go into the science topics with a fresh outlook.

Next, we will look into the actual history of CERN and discover if any biblically-

prophetic statements can be made based on the information. After that, we will look at the mechanics of the LHC itself, as well as at other particle accelerators around the world. This will conclude part 1.

We will begin part 2 of the book by looking at the wonders of quantum field theory. We

will even talk to a physicist who has written papers with Stephen Hawking and provided guest posts for Dr. Sean Carroll's website. This physicist has the extra attribute of also being a Christian, which adds a whole new layer to this study. Next, we will explore the discovery of the Higgs boson and its importance to science. We will conclude part 2 by looking into

supersymmetry and how, if true, it could lead to a complete restructuring of our understanding of the fundamentals of reality.

Part 3 will begin by looking at where CERN is headed in the future. We will also look at

some of the more popular doomsday scenarios that have been suggested by the media and

determine if they have merit. We will also explore the possibility of miniature black holes, extra dimensions, and the question of consciousness. We will conclude with what we personally

believe is a plausible possibility for where CERN may fit into Bible prophecy.

As with everything, the hope here is that you will examine the information provided and

continue the search for truth. As Scripture states, "My people are destroyed for lack of

knowledge: because thou hast rejected knowledge, I will also reject thee" (Hosea 4:6).

We need to be aware of the times in which we are living. As much as we should not jump

to uninformed conclusions, we also should not discount something merely because it goes

against our preconceived notions. Scripture also states, “He that answereth a matter before he heareth it, it is folly and shame unto him” (Proverbs 18:13).

We pray this book aids you in your search for truth. Thank you for reading and, as

always, take care and God bless!

Tom Horn and Josh Peck

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PART 1: Metaphysics of Doorways and “Gods”

Chapter 1

The Gates of the Gods

Ancient, mysterious rock foundations, structures, and temples across the globe have not ceased to baffle observers, and those who have dedicated their entire life’s work to studying these ruins have often raised more questions than they have answered. Not the least of these questions frequently focus on who built these structures, for what purposes they were built, and, most importantly, how they could have possibly been built. The size of the monolithic stones found in these locations, as well as the archaic building technology of that period, would have made the transportation and positioning of these stones a logical impossibility. And yet, these monoliths and constructs not only exist out in the open for any and all to see, but they are frequently assembled with such expert precision that you cannot place a needle or a human hair between the stones.

What kind of technology could mere humans have ever possessed to construct some of

these marvelous edifices, especially during the primitive and ancient eras the structures are dated to? Archaeologists have spent thousands of years

compiling theories, and many of them are even taught as fact in prestigious universities, but each time irrefutable evidence is brought forth to challenge these theories, the “facts” as we know them fall short of delivering a solid backstory that answers who, how, and why these buildings were assembled.

All around the world, legends exist from each culture of “gods” coming to earth

(sometimes through portals, sometimes on UFOs, sometimes appearing without explanation, the details differing from one account to another) to communicate their wills to humankind. Many times, these legends depict these beings to be benevolent, and many times they are seen as evil.

In almost every case, they are powerful and hold a certain level of dominion over man. But whether good or evil, one interesting parallel that appears over and over again is the tale that these beings mated with human women, producing godlike offspring. Demigods, like Hercules, if these tales hold any value as truth, could be explained easily as a result of this kind of union.

It is for this reason that absolutely fascinating books, movies, television shows, and radio broadcasts have launched hundreds of thousands of fictional narratives that address these

mysteries of prehistoric earth. Since the real answer to the whos, hows, and whys is not readily available through science and archaeology, the world of science fiction has grossed billions of dollars presenting fun and entertaining explanations. Whereas almost all of these stories are purposed for the sake of recreational amusement, once in a while one or two imagined plots leave the audiences saying “hmmm.”

One such movie— *which I want to state very firmly should not be considered any kind of*

foundation for true theology—was imagined in the early 1990s. It is to this narrative I will turn for a few pages, not to steer the readers into believing its Hollywood plot holds truth, but to bring the readers into the “feel” of

another, more supernatural mindset regarding the possibilities of old-world structures.

Stargate

In 1994, Carolco Pictures and Metro-Goldwyn-Mayer paired with the acting talents of Kurt

Russell and James Spader to produce a fascinating movie called *Stargate*. The story begins with a brilliant linguist and Egyptologist, Dr. Daniel Jackson (Spader), giving a lecture on the original builders of ancient Egyptian structures, primarily the Great Pyramid. As he timidly presents the evidence that the Great Pyramid was not built by the Egyptians, he is interrupted by skeptics in the audience. When one man asks forthrightly who *had* built the Great Pyramid, if it was not the

Egyptians as Dr. Jackson was claiming, Jackson is forced to admit that he does not know—that nobody really knows—and he is therefore abandoned by the entire assembly of unbelieving

scoffers.

Afterward, Jackson is approached by a woman, Catherine Langford, who quietly

observed his presentation and offers him a job translating the hieroglyphs on a large but inactive gateway structure discovered in 1928 in Giza by Langford's father. According to Langford, this undertaking might prove Dr. Jackson's theories of the enigmatic Great Pyramid builders to be true. Jackson agrees to assist, and is taken to the gateway. Over the period of a couple of weeks, he deciphers that the symbols refer to spatial coordinates via patterns in star constellations. The external ring of the structure is then aligned with Jackson's coordinates, and once the last symbol is locked into position, the gateway activates, revealing a bright wormhole resembling a wall of gravity-defying water.

The crew excitedly sends a probe to scout out the other side of the wormhole, but the

probe cuts out quickly, only sending back a few blurry images of a similar gate on the other side.

Jackson feels confident that he can activate the gate on the other side as well, ensuring that the travel capability would be two-way. Special Operations Military Commander Jack O'Neill

(Russell) is sent to supervise a reconnaissance mission upon whatever lay beyond the stargate.

He takes several soldiers with him, as well as Jackson, who assures that the men will return once he brings to life the stargate on the opposite end. Prior to their departure, Langford gives her prized "good luck" necklace—a gold chain dangling a medallion with the eye of the Egyptian god Ra found at the same location of the stargate—to Jackson, making him promise to return it to her.

Following Jackson's savoring of the supernaturalism of the ancient technology, feeling the edge of the watery portal with his hands and then face, his body is sucked into the wormhole and thrown through space, zipping past the stars and balls of light, until he is spit out onto the dust and sands of an unidentified planet. The portal behind him deactivates, bathing the recon team in darkness. Flares are lit, and the team wanders through hallways of tan brick, eventually emerging from a giant doorway flooded with sunlight. They descend the stairs and look out

across ceaseless, sweltering sands, no signs of life from any direction. Then, turning around, Jackson and O'Neill observe that the enormous building they arrived in minutes prior is an ancient pyramid, with three moons in the background.

Unable to locate the cover stones that would divulge the designated coordinates to return

home, the men are left stranded. Jackson observes a set of tracks in the sand leading away from the pyramid. Investigating them leads him to a bizarre creature hooked to a manmade harness.

The animal is spooked and takes off in a full run. Jackson, whose foot was entangled in the harness, is dragged over the hills a good distance toward a primitive society of people, followed closely behind by O’Neill and a pair of soldiers.

The inhabitants of the planet are human, clothed in tattered hides and coarse weaves, and

before O’Neill’s crew is spotted, the people obliviously continue their toiling away in the laborious mining of an ore unfamiliar to anything on earth. Stacks of this ore are being compiled in various scatterings throughout the settlement.

Slowly, Jackson approaches a man at the edge of the settlement, and before he is able to

attempt communication, the man observes Langford’s eye-of-Ra necklace around Jackson’s

neck. Alerting his people of this, he falls to his knees in worship, and the rest of the inhabitants follow suit. A leader is brought forward to greet Jackson, but Jackson’s proficient linguistic

knowledge seems apparently useless, as the native language only barely resembles ancient Egyptian, and they are unable to converse. Jackson presents the leader with a candy bar, and the response is positive, resulting in a gesture of invitation farther into the mining encampment. One of O’Neill’s men informs the commander that while they were exchanging initial peace gestures, he used a scanning device to take readings of the ore, and it proved to be made of the same extraterrestrial material as the stargate. This connection convinces O’Neill to accompany the leader, and after radioing the remaining recon team to keep the pyramid secure, the four men of earth are escorted to a civilization with tall brick buildings.

Over the city hangs the watchful eye of Ra, an exact match to Langford’s necklace.

Jackson discovers that reading and writing of any kind, even in the sand, are prohibited

by local law. One young girl becomes aware of Jackson's hunt for hieroglyphs through

complicated hand-signing and agrees to lead him to the only remaining structure—a kind of

tomb with dark hallways—where symbols are carved in the walls from another distant time.

Back at the pyramid, a great light beam flickers from the sky above, the ground shakes,

and a craft—also shaped like a pyramid, fitting over the first edifice like a glove—lands atop it and activates several glittering tiers. The soldiers inside are killed by strange beings in canine or bird masks, the likes of which match Egyptian hieroglyphs depicting the gods Anubis and Horus.

Meanwhile, Jackson and the young native girl explore the hieroglyphs of the tomb and

begin to communicate by pointing to the drawings and saying the words aloud. Jackson learns that the people's language is an evolved Egyptian tongue that hasn't been spoken on earth in over a thousand years, but once he restructures his understanding of the execution of vowels, he realizes that only by marginal adjustment of pronunciation, he can speak to the inhabitants of the

civilization with full understanding. The story written on the walls of the tomb tells of a star traveler—one named "Ra"—who escaped extinction of his alien race by scouring the galaxy for other healthy, thriving signs of life in order to transfer his consciousness into another, more survivable, species.

Landing his craft on earth (the viewer is led to believe it was long ago in Egypt), a young and fearless human boy approached the craft. The boy was taken to the alien gray, Ra, who

subsequently repossessed his body, cheating death, and essentially achieved immortality. In human form, Ra then traveled to this secondary planet with precious ore, where he erected a stargate as a portal between earth and his new location of power. Through the stargate, he brought hordes of earthlings as laborers to mine the ore, through which he would continue to develop alien technology and sustain life eternal. A rebellion was organized —by the humans on earth whose families were rapidly disappearing—to deactivate the stargate and bury it

underground. Ra feared a similar retaliation on this secondary planet, so as a means of insurance that his ore would continue to be unquestionably provided by his earthly underlings, he outlawed reading and writing of any sort so the truth behind his malice would never be discovered as the human race continued to live in oblivious obedience to him as a god.

Just after unveiling the story to O'Neill and the others, a back hallway of the tomb is

searched, and the stones with the stargate coordinates are found. The last symbol is corroded to the point that it is undecipherable, so with all possible links home found, and with heavy disappointment, O'Neill, Jackson, and the others decide to trek back to the pyramid. Upon

arriving back, they are dumbfounded by the "activated" and glowing structure. Soon, they

discover the remainder of their crew is missing, all of their personal items left behind. O'Neill finally reveals the US military's secret order: At the first sign of real potential danger to earth, a

nuclear bomb is to be detonated and the portal on the secondary planet forever destroyed. Before the mission can be carried out, however, it is revealed that the bomb is missing. An Anubis-masked alien arrives to abduct O'Neill and Jackson and take them to the throne room of Ra, located at the capstone section of the pyramid. Ra is displeased with the bomb his men found in the pyramid. He presses a button on the metallic masks of his nearby alien servants and the masks fold away, exposing the human faces of O'Neill's previous crewmates who were killed, now resurrected and

possessed by aliens. O'Neill attempts a heroic act, the aliens open fire with spear-like laser guns that far outperform any earthly gunfire equipment, and Dr. Jackson is shot and killed in the crossfire.

Ra has Jackson placed in the resurrection sarcophagus, where he is brought back to life

and healed completely, then brought to Ra's personal quarters. Jackson inquires about his death, and Ra explains that this is the reason the human race was chosen for his purposes: because their bodies are so easy to repair. When Jackson asks what Ra plans to do next, Ra explains that the nuclear bomb, when combined with the energy of the alien ore, will be a hundred times more powerful. This bomb will then be shipped to earth through the gateway, where it will destroy all human life. Before this plan can be carried out, however, Jackson must kill O'Neill and the remaining crew in front of all the miners in order to prove to the inhabitants of this secondary planet that Ra is the one and only true god of the people. In this way, they will continue to mine the ore and follow Ra without question. Should Jackson refuse, any and all men and women who have come into contact with Jackson will be destroyed, and Ra's secret will be contained.

When Jackson is brought before his companions with a weapon in front of the entire

assembly of miners, he discovers that the people have found the gun stores that were brought through the gateway by O'Neill's men and hidden discreetly under their clothing. A flashback

alerts the viewer that after Jackson's capture, the young girl had taken key figures of their civilization into the tomb and explained that Ra was truly an alien gray and not a god at all; rather, that her people were originally from earth, abducted in ancient Egypt, and no longer had to live as slaves. Choosing to believe her explanation, her people were now prepared for a rebellion against the malice of Ra. Jackson sees his opportunity, points the laser gun at O'Neill, and fires instead on his alien captors. Gunfire breaks out from all sides and the civilians escape.

Ra and his men return to the cap of the pyramid, where one of the lead aliens is killed for the failure to maintain control.

In a cave, a young Egyptian celebrates his newfound freedom to write, drawing a symbol

of the day of victory against Ra’s men. Jackson observes the drawing of the pyramid with three moons above it. The moons, themselves, are in a pyramidal shape. Jackson approaches the wall, draws a line connecting the moons, and discovers the significance: The earliest Egyptian

pyramid was shaped from this secondary planet’s moon alignment, an explanation for the unique building patterns of the first Egyptian structures on earth—built and supervised by Ra. Because this is also the symbol of origin, Jackson believes it doubles as the lost seventh symbol for the stargate, and thus, they have a way to return home.

While Ra is preparing the bomb to ship to earth, a caravan of ore is brought to the

pyramid. Unbeknownst to Ra and his men, the caravan is led by a disguised O’Neill, Jackson, and the remaining soldiers. When a flurry of gunfire results, O’Neill makes his way to the bomb and activates it. Just as Ra is taking off in his capstone escape pod, Jackson and O’Neill figure out a way to plant the bomb on Ra’s ship. Seconds later, Ra is seen staring at the bomb, his face glowing. The alien gray shows from underneath, and then his ship explodes high in space,

creating a nuclear flash of light that can be seen from the secondary planet below.

With Ra finally outwitted forever, Jackson configures the stargate with the seventh pyramidal symbol, and the remaining soldiers step through to earth. Jackson decides to remain on the secondary planet with the young girl, but sends Langford’s “good luck” necklace back with O’Neill.

The Nephilim Ra

Whereas this plot is entertaining and fun to watch and read about, it’s not one that should be leaned upon as a plausible explanation for all ancient buildings and the relationship that mankind would have with old-world “gods.” I do not believe there is a secondary planet somewhere with kidnapped humans mining alien ore for a dictatorial extraterrestrial. I do not believe that there are portals from earth to Mars or Jupiter or anywhere else that can be activated because some brilliant linguist can study the stars and push a sequence of buttons. It makes for a very good movie, but it is not a great foundation for theology or science.

What a movie like *Stargate* does accomplish, however, is setting the stage so that

otherworldly and supernatural explanations for these enigmas can be discussed over a fictional backdrop and visual reference. Since these ancient structures like those mentioned at the

beginning of this chapter, as well as the Great Pyramid, do not have a human explanation, could this *Stargate* plot have anything—no matter how loosely—to do with reality? Could these mythological “gods” have been some semblance of alien or demon origin, or both? Might there be a close connection between the narrative in Genesis 6 and these buildings that we cannot otherwise explain?

When man began to multiply on the face of the land and daughters were born to

them, the sons of God saw that the daughters of man were attractive. And they took as

their wives any they chose.… The Nephilim were on the earth in those days, and also

afterward, when the sons of God came in to the daughters of man and they bore children to them. These were the mighty men who were of old, the men of renown. (Genesis 6:1–

4, paraphrase)

For the readers who might be less familiar with this popular theory proposed by leading

scholars, let's visit this step by step for a moment. "When man [that's us] began to multiply

[prior to the Flood of Noah's day, the *first* time the world was populated]…and daughters were born to them [that's our human offspring], the sons of God…took as their wives any they chose."

In the Old Testament, "sons of God" referred to angels (cf. Job 1:6, 2:1, 38:7). "The Nephilim [a race of giants] were on the earth in those days…the mighty men…of renown ["renown" referring to great fame and importance in ancient cultures, perhaps feared and revered to the point of a

"Ra" character like that on *Stargate*]." The Nephilim was a race of giants, the likes of which pure human DNA would not have produced on its own.

Some attest that because Matthew 22:30 says that at the resurrection people will not

marry because they will be like the angels in heaven, these "sons of God" would have *had* to be purely human, assuming that Matthew indicated angels cannot marry. (Leading Christian

graduate colleges still teach this as fact today in Bible and theology classes.) However, why would human men be referred to as "sons of God" in the first place, and, had they been mere human, how would they produce the Nephilim, these "mighty men" who were "men of renown"?

To bring order to this confusion, let us first acknowledge that Matthew did not directly

say that "angels cannot marry"; he merely said that the "angels in heaven" would not. Clearly, if these "sons of God" (angels) were "on earth," then we are looking at two completely diverse angel categories here: a) those "in heaven" who do not marry, and b) those "on earth," and therefore "fallen"

(demonic; belonging to the legions of Satan), who would have every interest in

foiling God's plan of redemption through marrying the "daughters of men" and producing hybrid offspring.

For those who have read other books I've (Tom Horn) penned in the past, this is nowhere

near a new concept. That is why, although I could write another ten chapters about this event in Genesis, I have chosen only to pave the foundational hypothesis here to bring us back to this loose "Ra of *Stargate*" idea.

If we were to apply much of the movie plot to theology: We would strike the material

regarding Ra's original motive to possess the human race for the purposes of his own survival and replace it with the motive to demonically contaminate and corrupt the human race as an attempt to permanently cut off the clean line of DNA eventually leading to Christ; Ra would be seen as a literal fallen angel (or Nephilim), not just an alien gray; and the plot would eventually lead to the moment when Jackson reads in the tomb that Noah and his family are the only

remaining people of God whose DNA is perfect, which led to the Flood (a clean slate for

mankind).

If one believes that the Holy Bible is infallible, one has to accept that at some point in history, giants, "mighty men of renown," were present alongside regular humans upon ancient earth, as Genesis states. If they were so well known to that culture, then legends of Ra, Horace, Anubis, Hercules, Atlas, and so, *so* many other gods of old are no longer far-fetched. It may very well have been under the supervision of these "gods" that the bewildering, old-world architecture was supervised.

Collectively, since these structures, temples, and monolithic stones cannot be rationally

tied to human origin, they stand to be proof that planet earth at one time was home to a people or

race much more intelligent and proficient than the slaves-with-pulley-carts civilization that our modern history books reflect. These include gigantic edifices built from the largest stones ever cut and put into place, seeming to indicate manufacturing skills that went well beyond what we know of primeval man. Examples of such herculean slabs weighing hundreds of tons can be

found above Lake Titicaca in Peru; others are located in in Tiahuanaco, twelve miles south of Lake Titicaca in Bolivia, South America, and even larger stones are seen at the southern entrance of Baalbeck, a city in eastern Lebanon famous for its magnificent temple ruins.

And what of portals?

What follows are a few examples of the many megalithic and mysterious structures some

believe predate the great Flood.

Puerta de Hayu Marca ("Gate of the Gods")

Just off the shores of Lake Titicaca, Peru, rests a peculiar wonder that defies explanation. In a region known by the Peruvian Indians as "The City of the Gods," measuring in a perfect, twenty-three-foot square, is the *Puerta de Haya Marca*—the "Gate of the Gods"—a bizarre stamp embedded in the side of a flat, natural rock formation on the border of Bolivia. Inside the square, at the bottom center, is another recessed impression within the rock (standing just under six feet high), which, from a distance, resembles a kind of keyhole.

Upon closer inspection, the "keyhole" appears more like a door, and in the very center of

it is a small, circular dent/depression in the back wall. Local legend says that the Amaru Meru (sometimes “Amaru Muru”), the Incan priest of the “Temple of the Seven Rays,” ran away into the mountains to flee the Spanish Conquistadors who had come to rob and plunder the Incan

tribes. With him, he held a small disc, the “Key of the Gods of the Seven Rays.” Once he was a

safe distance from the temple, the Amaru Meru conducted a ritual with his fellow priests, using the small disc to open a portal within the flat rock, through which he completely disappeared.

(Some versions of this tale claim that the Amaru Meru was fleeing alongside several familiar priests of the Temple of the Seven Rays. Others say he fled alone, discovering the doorway while in hiding, and happened upon shamans guarding the doorway, who thereafter agreed to perform a portal ritual with him when they saw the disc he held. Either way, both versions of the tale suggest that the doorway was a giant image carved into the mountains well before the priest fled the temple.) This event, the legend says, turned this solid rock into a “stargate.” According to local lore, this priest was the first of other “kings” who came to earth from heavenly locations specifically associated with the Pleiades (Apollo) and Orion (Osiris).

Other folklore offered by the Native Indians say the site is “a gateway to the lands of the Gods” through which, in their ancient past, great heroes arrived and then departed with a “key”

that could open the mysterious doorway. In some adaptations, these ancient men had left this world to begin life anew amidst other interdimensional heroes, occasionally returning to “inspect the land of the kingdom.”[2]

Nobody knows who crafted this door-shaped marvel. Theories abound as to its origin,

and for as many archaeologists who claim the site is merely an abandoned building project by the Incas, just as many have reason to believe the site predates Incan occupancy—and some note the doorway carving is not

typical of sporadic Incan design. Because the site is considered an ancient archeological site, and because it is protected by the Peruvian government, further excavations potentially revealing its secrets and origin have not yet occurred.[3] However, as of this writing, there has never been any evidence of an earlier/ancient settlement nearby.

(As an interesting sidebar, the mysterious Gate of the Gods exists within close proximity to the "Stone Forest" of the Markawasi [*Marcahuasi*] plateau in the Andes Mountains. The Stone Forest is a wealth of oddities in and of itself, sporting gigantic carvings and sculptures strongly resembling human faces and heads [as well as many animals], many of which could easily be

interpreted to represent various ancient world cultures. Among them is one sculpture that mirrors the Face on Mars. Another, the famous "Monument of Humanity" at Markawasi, is so named for the "four distinct races of humanity which can be found on this 85-foot-high monument."[4] It is especially fascinating that four different races of people would be sculpted from the same rock so near the gate that legendarily became the portal for "ancient heroes" who had the access to seeing whatever "races of humanity" they wished to all at once. There doesn't seem to be many available explanations for how an ancient civilization would be so familiar with other races of people— *and consider them important enough to carve onto giant stones*—all within the same time frame and location. Yet, assuming there is validity to the portal theories, interdimensional traveling, and carving as a way of "documenting" such an event, it is worthy of note.)

Not far away from this gate is another notable "portal," as they say, known as the Gate of the Sun.

Tiahuanaco and the Gate of the Sun

The archway (or "gate") of Tiahuanaco (often spelled alternatively "Tiwanaku"), near La Paz, Bolivia (and like the Gate of the Gods, located close by Lake Titicaca), is a puzzling discovery on many counts. To begin, it raises the same questions as Baalbek and similar megalithic sites regarding the hows and whos of its megalithic size and expert composition.

The gate is 9.8 feet tall, 13 feet wide, and weighs approximately 10 tons (20,000 pounds). Though split into two at

some point in history, it was originally constructed from a single stone. Many sources online say this stone could date to around 12000 BC.[5]

But the iconic Gate of the Sun piece is not by any stretch the largest stone moved at the

surrounding archaeological site, an area said to be an "oxygen-deprived" and "inhospitable"

thirteen-thousand-foot elevation, housing two-hundred-ton monoliths in the structures some *ten miles* away from the quarry.[6] These ruins are unique in their cutting-edge geometric design, the techniques of which have only *just* been acquired within the last one hundred years by our modern-day builders.

ViewZone journalist Dan Eden documents:

Some of the stones show evidence of tooling that simply could not have been

done with any known ancient technology.…

[And much lower in the article:] There is no known technology in all the ancient

world that could have transported stones of such massive weight and size. The Andean

people of 500 AD, with their simple reed boats, could certainly not have moved them.

Even today, with all the modern advances in engineering and mathematics, we could not

fashion such a structure.[7]

Unlike previously mentioned sites, there is enough evidence here of settlement,

resources, intelligence, and planning that the question of "who" becomes an all-new opposite extreme. Although archaeologists and historians agree that this site was built by "Tiahuanacans,"

there is no easy explanation for what kind of people—or race—they were, exactly. Set apart from other ancient civilizations as a result of their advanced intelligence, it is no surprise that many individuals associate them with "extraterrestrials."

Extraterrestrial connections were first suggested by Eric von Daniken and have been perpetuated by discoveries of the apparent advanced knowledge that Tiahuanacan engineers

seemed to possess—thousands of years ahead of other cultures.

Analysis of this culture has shown that ancient Tiahuanacan scientists knew the earth was

a globe that rotated on its axis, and they calculated exactly the times of eclipses—even those not visible at Tiahuanaco but seen in the opposite hemisphere.

Scientists have also ascertained that the Tiahuanacans divided the circle mathematically

into 264 degrees (rather than 360, as was initiated by the Babylonians); they determined the correct ratio of pi (22/7); and they could calculate squares (and hence, square roots).[8]

But despite the speechlessness that such irrefutable brainpower hidden away in the hills

of the sun would cause, the innate yearning within human nature to solve the unsolvable inspires many to speculate:

Many theories for the skill of Tiwanaku's architectural construction have been

proposed. One is that they used a *luk'a*, which is a standard measurement of about sixty centimeters. Another argument is for the Pythagorean Ratio. This idea calls for right

triangles at a ratio of five to four to three used in the gateways to measure all parts. Lastly Protzen and Nair [authors of "On Reconstructing Tiwanaku Architecture," in *The Journal of the Society of Architectural Historians*] argue that Tiwanaku had a system set for individual elements dependent on context and composition. This is shown in the

construction of similar gateways ranging from diminutive to monumental size, proving

that scaling factors did not affect proportion. With each added element, the individual

pieces were shifted to fit together.[9]

Regardless of the methods used for building, there is absolutely no evidence that this culture had experimented up to the ingenuity we see today. It is as if they knew exactly how to execute their building aptitude by instinct from the very first attempt, instead of showing any evolutionary phases of skill. (As if they had simply "poofed" here from somewhere else, having already evolved in their skills elsewhere, like the "Ra" of *Stargate*…)

As a point of further intrigue, the site tells excellent stories and displays impressive

religious implications within its artwork. The deity at the center and top of the Gate of the Sun has been identified by some historians and archaeologists as the god Viracocha, who created the

"race of giants."

Baalbek

Baalbek (often spelled “Baalbeck” or “Baalbec”) welcomes an almost never-ending line of

spectators year round. Professional scholars, historians, architects, and archaeologists continue to name Baalbek one of the greatest mysteries in world history for its monumentally scaled temple ruins and enigmatic findings at the nearby quarry.

Known by early inhabitants (ca. 334 BC after Alexander the Great’s victory in the Near

East) as “Heliopolis”—which translates to “City of the Sun” from the Greek *helios* (“sun”) and *polis* (“city”)—Baalbek was one of the most prevalent sanctuaries in the Roman Empire, and its structures are some of the most well preserved standing today. Much discussion has centered around theories that the town may have been an ancient settlement predating Roman rule by

centuries at least, and recent pottery fragment finds along the trench channeling the Jupiter temple now date the site to between the “Pre-Pottery Neolithic B Age” (or “PPNB,” representing the latter stages of the Stone Age before mankind could craft pottery, approximately 8000 BP

[“Before Present”] and 6000 BCE) and the Iron Age (approximately 1200 BC–AD 550).[10]

Several skeletons and some pottery from Persia were discovered under the Roman flagstones, indicating additional settlement evidence dating to around 550 BC.[11]

The largest confirmed ancient stone building block on earth at the time of this writing

(see note about Mount Shoria later in this chapter) was found in Baalbek by German

archaeologists in the middle of 2014 at the quarry of a building site from which gigantic stones had been used for the podium of the enormous

“Temple of Jupiter” (built later on by the Romans atop the original mound construction, “Tel Baalbek”). This unfathomable monolith measures in at 64 feet (19.6 meters) in length, 19.6 feet (6 meters) wide, and 18 feet (5.5 meters) high, and is estimated to weigh 1,650 tons (3.3 million pounds).[12]

Prior to the more recent unearthing of this giant rock, one of the largest quarried stones on earth had been the “Stone of the Pregnant Woman” (*Hajjar al-Hibla*), also located in Baalbek, which protrudes out of the ground at a sloping angle directly alongside the even larger stone found a couple years ago. There are several stories and claims behind the naming of this rock. One tells of a pregnant woman who duped the Baalbek inhabitants into believing she held the secret behind lifting and moving the rock in one piece. In trade for her secret, they would feed her and the baby in her womb and take care of all her prenatal needs, but after her child was born, no hidden truths emerged, and the stone has remained tilted out of the ground ever since.[13]

Another story suggests that jinn—the Arabian and Islamic mythical beings made of smokeless, yet corporeal, fire—assigned their pregnant women to move the stones, and when one such jinn heard the news that Solomon had died, she excitedly dropped it to the ground where it still lay.[14]

Yet another rumor lingers around the local area that the name originated from the stone’s ability to increase the fertility of any woman who touches it.[15] Whatever the true origin of its name, the Stone of the Pregnant Woman (weighing just over a thousand tons [approximately 2,205,000 pounds]) is estimated to have required more than forty thousand laborers to move it,[16] though the sources that suggest this number seldom seem to provide a convincing answer as to *how* that would have been accomplished with the building technology of the time regardless of the number of available work hands. It is so close to its newly found and massive counterpart that a fascinated voyager to Baalbek can reach out and touch two of the largest stones on earth at the same time. (Note that there is a third stone across the road from these, vaster than the Stone of the Pregnant Woman, but not as enormous as the most recent find by the Germans in 2014.)

There are many theories in existence, sometimes heatedly debated, regarding who carved

the monoliths of Baalbek (both those left at the quarry and the base stones of the Temple of Jupiter known as the “trilithon”), when they were created, for what purpose, and how they were transported. The mind-boggling reality is that almost every explanation relying on the hands of human men seem to reveal numerous flaws.

Because we know that the Romans were responsible for the building of the uppermost

portions of the Temple of Jupiter (as well as the *Heliopolis* temples of Bacchus and Venus in the Baalbek temple complex over the period of two centuries) based on biographical Roman

engineering documentation ordered during the Roman Empire, it seems, for many, quite rational to assume that the Romans were responsible for the larger stones in this area as well.

Visiting that possibility, and focusing only on the Temple of Jupiter, we will start at the top and work our way down. In order to understand these authors’ take on the Romans’

involvement with the monoliths, some knowledge is needed of their usual building practice.

Columns and Cornerstones

Fifty-four columns were raised in the original Temple of Jupiter structure, involving blocks weighing up to sixty tons (120,000 pounds) each. Each cornerstone weighed more than 100 tons (200,000 pounds), and they were hoisted to 62.34 feet (19 meters) above ground surface.[17] The method used for the top of the temple construction could in part be attributed to the Greco-Roman, man-operated, treadwheel pulleys (*pentaspastos* or *polyspastos*, depending on the number of men required to operate), the tools and techniques of which were well documented by engineers Vitruvius (*De Architectura* 10.2, 1–10) and Heron of Alexandria (*Mechanica* 3.2–5).

The maximum weight that these early cranes could lift and carry when operated to the

absolute maximum capacity of their design and with a full crew did not usually exceed 6,000

kilograms (13,228 pounds).[18] Mathematically, this would mean that the cranes—when used alone—fell shy of the capability to lift a single cornerstone of the Temple of Jupiter by

approximately a little under a staggering 200,000 pounds.

The most likely explanation for the additional weight lifting and maneuvering for the top

of the Tower of Jupiter—often mentioned by historians and architectural professionals today (and discussed in historical accounts associated with the raising of the Lateranense obelisk of the Circus Maximus [*Ammianus Marcellinus* 17.4.15] ca. AD 357)—points to the installation of lifting towers (*Mechanica* 3.5), used in tandem with early capstans (horizontal rotators) fixed upon the ground around the lifting tower. The capstans each contributed less weight-lifting efficiency than did the treadwheel pulleys, but they required fewer men (or animals) to function, and more of them could be placed upon the ground when needed, offering increased leverage

overall than the pulleys alone. If more weight was required for the lift of an individual stone, more capstans would be installed on the ground around a lifting tower, and so on.

The average capacity of the joined capstans in tandem with a lifting tower of this era has been estimated at 7.5 tons per capstan,[19] and the method of lifting by capstan was via attachment to lewis iron holes in each stone. For example: a sixty-ton architrave block (one of the stones placed near the top of the Roman columns) from the Tower of Jupiter, discovered with eight lewis iron holes, delivers this equation: 8 capstans x 7.5 tons per capstan = 60 tons capacity. The architrave blocks in the Jupiter tower weighed *up to* sixty tons, so the capstan/lifting tower combination theory is certainly

feasible for the tower stones when inflated for more weight, even for the over-one hundred-ton cornerstones.

With enough capstan and lifting tower installations scattered about, and with the

assistance from treadwheel pulleys on the lighter stones, the achievement of the Tower of Jupiter columns above the original and far more ancient foundation stones could be explained and easily attributed to Roman ingenuity.

Below the columns, however, is the trilithon (three extremely large and heavy monoliths, lying between the Tower of Jupiter and the Tel Baalbek mound). This is where we first begin to run into the heated debate regarding the whos and hows of this so-called Roman architecture.

Trilithon

The first theory (more often this theory is merely associated with Arabian lore involving the

“magician” works of Solomon, and is therefore taken less seriously than theories involving Roman origin) can be seen in an image caption from Daniel B. Shepp’s *The Holy Land*

Photographed. Below Shepp’s included photo of the Trilithon, we read:

Even more wonderful to many than the ornate ruins of the temples, is the masonry

of the outer walls of Baalbec. Here are the three largest stones ever used in

architecture.… One of these is sixty-four feet long, another sixty-three feet eight inches, and the third sixty-three feet. Each is thirteen feet high and thirteen feet thick. To these dimensions must be added the fact, that they have been built into the wall fully twenty

feet above the ground [note that Shepp is referring to the measurement from the stones to

the ground as it lay in 1894, prior to further depth revealed in archeological digs, which increased that measurement later], and the further fact that the quarry from which they

were taken is fully a mile distant. Those who identify Solomon with the buildings of

Baalbec, connect these stones with the narrative in I Kings VII: “And the foundation was

of costly stones, EVEN GREAT STONES, stones of ten cubits, and stones of eight

cubits.” The Arabs believe that Solomon was a magician, and by a magic word, moved

these giant slabs.[20]

Yet, it goes without saying that most great minds that approach the mystery of the

trilithon secularly will disregard the idea that Solomon transported the stones by magic.

Considering other mainstream theories, one will almost immediately land on the arguments put forth by French archaeologist Jean-Pierre Adam, author of the 1977 scholarly article, *A Propos du Trilithon de Baalbek. Let transport et la miseen oeuvre des megaliths*[21] (“Concerning the Trilithon of Baalbek: Transportation and the Implementation of the Megaliths”). Adam’s

approach to the mystery involves a look at the “Thunder Stone,” a giant boulder (one and a half times the weight of the trilithon blocks of Baalbek [1,250,000 kilograms; 2,755,778 pounds]))[22]

that makes up the base of the “Bronze Horseman” (*aka* the “Statue of Peter the Great”) in Saint Petersburg, Russia.

The composition of the Bronze Horseman statue was ordered by Catherine the Great in

an attempt to inflate her position as Peter the Great’s rightful heir. Beginning the planning for the

statue in 1766, the Thunder Stone was found in the deep marshlands of Lakhta, just a few miles from the Gulf of Finland, in 1768. Greek engineer Marinos Carburis agreed to oversee the

moving of the stone and began the intimidating trek as soon as manpower resources were in

place. The stone was moved approximately four miles (six kilometers) within two years over both land and water. Most land transportation occurred in a nine-month period by four hundred men using ingenious roller tracks and capstans, and water transportation required a gigantic barge built specifically for carrying the Thunder Stone, with the additional requirement of a warship on each side of the barge for further support.

Because the distance between Lakhta and the Senate Square of Saint Petersburg is about

four miles, and the distance from the trilithon to the quarry in Baalbek is only about 2,600 feet (800 meters), and because the Thunder Stone is larger than the trilithon stones, Adam finds the moving of the trilithon stones an even lesser feat than that of the Thunder Stone when

hypothetically applying the same or similar transportation methods.

Understandably, this comparison inspires that “aha” moment for many researchers, and is

considered a feasible explanation for the potentially applied physics of the brightest minds in ancient Roman engineering toward the trilithon stones of Baalbek. Adam’s is an interesting theory, for sure, and one that has gained immense following as a result of the Temple Mount structure ordered by Roman client King Herod the Great in Jerusalem, Israel, which is home to

base stones weighing close to the same weight as those of the trilithon at Baalbek. These Temple Mount stones (the largest of which is 630 tons) remain unchallenged as Roman in origin, so many suggest with good reason that the stones of Baalbek would have only required a slight increase in construction efforts to accomplish. Further, many assume that the three monoliths left at the nearby quarries represent a point at which the Romans bit off more than they could chew,

so to speak, cutting and shaping stones that ended up later to be more than their cranes, lifting towers, capstans, etc., could move. This would not only explain why the stones were abandoned at the quarries, it would also explain why the monolith across the road from the Stone of the Pregnant Woman shows deep, squared cuts in one end, as if the Romans acknowledged their

inability to move the stone and therefore decided to cut it down into smaller stones until the monolith was of manageable moving size. (Note, however, that the stone with the rivets cut on one end has also been acknowledged to have imperfections within the stone, so for just as many people asserting that the Romans were cutting it down to a size they could lift, an equal number claim the stone was merely being cut by its original dressers to preserve quality and avoid the evident risk of a crack quickly appearing in a foundation stone.)

Left wanting, however, is any documentation whatsoever by the Romans that they would

have used this Thunder Stone method of transportation for the trilithon stones when all other building practices were so well documented during their heyday. The Romans were a proud and brilliant people who left our world with so many records of what they accomplished and, in so many cases, how they accomplished it. Those records have been thoroughly researched and

studied for hundreds of years. We cannot attribute this stone-moving method (as well as the other methods mentioned by Adam in his study) to their book of tricks without also asking why they wouldn’t have been intelligent enough to record such an accomplishment at Baalbek. Even more

important, as stated earlier in this chapter, there have been discoveries from the Pre-Pottery Neolithic era within the soil along the channels of the Temple of Jupiter that point to this site predating the Romans by centuries.

On the tails of the most prevailing theories of Roman attribution come thoughts

perpetuated by archaeologists that the trilithon stones were of Greek origin for use as a retaining

wall in soil-erosion circumstances. And whereas, again, we have no record of this, we also have no reason to believe the Greeks—despite their impressive amphitheater ingenuity—would be

capable of achieving more than the Romans in relation to moving stones that weigh hundreds and hundreds of tons.

Other ideas have surfaced throughout the preceding decades. Some are both sensational

and altogether incredible—for instance, the idea that the Romans would have built a Nile-like river that carried the trilithon stones by boat when there doesn't seem to be enough solid evidence that a river of that magnitude could have ever existed that close to these structures. On and on the Roman-origin explanations seem to arrive, each one supported by its own list of archaeologists, and each one eventually challenged by just as many or more professionals well respected in the field. Skeptics chastise those who attribute the monoliths to ancient

extraterrestrial activity or the giants of Genesis, saying that just because one cannot find origin in human life, he or she will turn all too quickly to the supernatural for explanation. Sometimes these comments are delivered in extreme sarcasm, flowing to the tune of: "We can't understand how ancient humans could have done it, so it must have been aliens." Believers in the

supernatural chastise the skeptics in turn, questioning their outright denial of the possibility of supernatural activity or ancient humanoid hybrid beings

(the “Ra of *Stargate*” idea) when there remains to be found any other irrefutable explanation as to how ancient humans could have

accomplished more than our historical records have *ever* been able to attribute to them.

But whatever the theory, the fact remains that the origins of the trilithon and quarry

stones at Baalbek remain unknown and have baffled researchers and archaeologists for centuries.

Without documentation by a race or people as to the materials and methods used, as well as the

purpose behind the structures in Baalbek, the answers may always be obscured, and speculation may always result in the posing of even deeper mystery.

Note, however, that there is one historical document we have yet to visit in this chapter, which seems to give just as likely an explanation as the speculated “ancient humans.” The Bible is respected, even by many nonbelievers of the Christian faith, as a historical document, and one that has proven time and time again to connect the dots where other sources have failed. This was the source reflected in the 1860 diary of the Scottish diplomat and writer David Urquhart, whose mind was “paralyzed” by “the impossibility of any solution” involving how, why, and by whom the original construction at Baalbek (whose much older ruins were built upon by the

Romans, who used it as foundational substructure on which they built the “Temple of Jupiter”).

Urquhart’s only conclusion was that the temple had to have been built by those megalithic

masterminds of the days of Noah.

There was here, therefore, not one of the elements combined at Memphis,

Babylon, Nineveh, or any of the seats of empire, of the ancient or modern world [but]

ruins, surpassing in their indications and evidences of greatness anything to be found in

those ancient capitals, to an extent which defies all calculation, leaving the imagination itself stranded on a bank of mud.

On the top of this comes a third riddle; how these works were interrupted. They

are not merely not concluded, but they are stopped at the very beginning.…

Was it a foreign invasion? Was it an irruption [sic] of savages? Was it a

“confusion of tongues?” What could it have been?…

My first exclamation, on looking down into the quarry, had been “There were giants in the earth in those days.”…

The builders of Baalbeck must have been a people who had attained to the highest

pinnacle of power and science; and this region must have been the centre of their

dominion. We are perfectly acquainted with the nations who have flourished here or

around, and their works; they are the Assyrians, Chaldeans, Medes, Persians, Egyptians,

Canaanites, and Jews. These complete the catalogue of ancient empires, and this work is

none of theirs.…

It was only on my way back, and when the tomb of Noah was pointed out to me

by the wayside, that it occurred to me that there might be something in Emir Hangar's

story, and that the stones of Baalbeck had to be considered as some of "those sturdy

fellows that the Deluge could not sweep away." This, then, was a remnant of that pride

and presumption, which had brought the waters over the face of the earth.[23]

Could there be something to Urquhart's train of thought that actually provides more

"answer" than it does pose further inquiry? Could the "Ra of *Stargate*" notion be closer to target than secular minds want to admit?

Russian Megaliths May Provide the Biggest Proof Yet

Lastly, supposing the mysteries of Baalbek were finally cracked, attributing the movement of the trilithon stones and the existence of the quarry stones to human hands, a more recent discovery could potentially erase all of that decryption progress and render it largely irrelevant in comparison to the latest thrill: As mentioned prior, the largest stone in the world confirmed for the purposes of building at the time of this writing currently rests in the quarry of Baalbek,

weighing an estimated 1,650 tons. However, last year, stones estimated to weigh *an astounding 3,000–4,000 tons* have been discovered on Mount Shoria in Siberia. At this present time, the site is such a young find that little is known about these stones, so theories haven't yet begun to surface. Before this site officially launches all the who and how questions that our world has attempted for centuries to answer about Baalbek, further study on the megaliths of Mount Shoria must rule that the stones were, in fact,

dressed by hand, and therefore not a product of natural formation. That said, pictures of the stones can be viewed online, and archaeologists are already buzzing about the proof that the stones are much more than that:

An ancient “super-megalithic” site has been found in the Siberian Mountains.

Found recently in Gornaya Shoria (Mount Shoria) in southern Siberia, this site consists of huge blocks of stone, which appear to be granite, **with flat surfaces, right angles, and sharp corners.** The blocks appear to be stacked, almost in the manner of cyclopean

masonry, and well…they’re enormous!

Russia is no stranger to ancient megalithic sites, like Arkaim or Russia’s

Stonehenge, and the Manpupuner formation, just to name two, but the site at Shoria is

unique in that, if it’s man-made, the blocks used are undoubtedly **the largest ever**

worked by human hands.[24] (bold emphasis in original)

Needless to say, Mount Shoria is about to become the source of much news. Should these

square, stacked stones prove to be dressed by tools and not by weather conditions (which seems a preposterous thought when viewing the photos of their precise shapes and placements),

Baalbek will no longer hold the heavyweight title for the world’s greatest archaeological

monolith mystery.

With all these proofs of structures and stones—and many others we have not covered here—that can’t be attributed to human means in our current day no matter how much the

modern world and its professionals wish them to be, we are left to accept that something more than human (or at the least "humans" with a higher level of intelligence than we can fathom applied to those cultures, such as the hybrid humans of Genesis 6) is responsible for their origin.

If we can arrive at that conclusion, then the trail of thought from this supernatural reality to the other mentioned herein—that of portals, gateways, and stargates that perpetuate travel (both spiritual and physical) between one reality and another—is a naturally flowing one that by default seems plausible.

There is one last location I would like to visit before we conclude this trail. The Great

Pyramid as a potential portal or site of extreme supernatural activity, for the purpose of this study and reflection, is far more than just Hollywood's movie-script brainchild back in 1994.

The Great Pyramid of Giza

Also known as the Pyramid of Khufu (the second pharaoh of the fourth dynasty), the Great

Pyramid of Giza is the oldest, and only preserved, of the Seven Wonders of the Ancient World.

The first mystery it presents is the "why," since we have already firmly ruled out that it was ever intended to be for funerary use like other pyramids. Because we do not readily have an answer for this one, we can move right along to the "who" and "how" as they are naturally posed.

Its construction is often even more debated than the previously mentioned locations in

this chapter. Hollywood, itself, exploited this mystery when it produced *Stargate* in 1994. Most theories involve dragging stones from a nearby quarry (sound familiar?). Yet, for every theory, there are contradicting fact-fails. Because we have gone to great lengths to evidence the

enigmatic realities of places such as Baalbek already, and because the stones of the Great

Pyramid of Giza will only raise similar questions and theoretical answers, we will not visit the size, scope, placement, and relocation of the pyramid's stones exhaustively here. However, we will cover briefly a few interesting notes before moving on to a few extremely odd mathematical realities of this location.

To begin, it is estimated that more than two million stones were used. The heaviest of the granite stones in the king's chamber weigh in at an estimated 176,370 pounds (or eighty metric tons). Their origin? Aswan, Egypt, over five hundred miles away from the pyramid. That's quite a trek by land *or* by boat. The limestones were taken from Tura on the other side of the river.

Again, multiple explanations are given, and subsequently questioned, as to how these stones were cut and transported. The total estimated weight of stones used is more than twelve billion pounds (or 5.5 million tonnes) of limestone and almost eighteen million pounds (or eight

thousand tonnes) of granite. And, from the *Ancient Code* website:

As if this isn't incredible enough, the cornerstone foundations of the pyramid

have ball and socket construction capable of dealing with heat expansion and

earthquakes. This technology has allowed the Great Pyramid of Giza to remain standing

thousands of years after its construction. Something that still causes headaches among

experts is the mortar used in the construction of the Great Pyramid: The mortar used is of an unknown origin (Yes, no explanation given). [A "Ra of *Stargate*/extraterrestrial ore"

overtone springs to mind.] It has been analyzed and its chemical composition is known

but it can’t be reproduced. It is stronger than the stone and still holding up today.[25]

After an enormous earthquake in AD 1303, an event that shook loose the external

limestone from the original structure, most of the limestone was carted away and used in Cairo

for the placement of mosques and strongholds during the Turkish Bahri Dynasty by an-Nasir Hasan circa 1356.

In 2013, papyri scrolls were discovered within the pyramid, detailing the final days of

construction by an unknown “Merer,” who led a building crew of two hundred men. Merer does mention in these scrolls the filling of boats with stones along the Nile River and returning to report to “the noble Ankh-haf”[26]—the half-brother of Pharaoh Khufu. This is astounding evidence that places the Great Pyramid at the center of the “Khufu-ordered” construction claim.

Perhaps, then, the “who” is cracked, inasmuch as we have solid names of entities to trace back to. It does not, however, explain away the mysteries behind the execution of the construction or give account for the other ambiguities about the pyramid that make it unique from all the others in Egypt, so the “how” and “why” are still unanswered.

For almost four thousand years, until the erection of the Lincoln Cathedral of England,

the Great Pyramid was the tallest “man-made” structure in the world. The precision and

mathematics applied to the laying of stones is such that the four side walls equal mere

millimeters in length discrepancy, and the internal chambers are placed together with equally mind-boggling accuracy. Based on the measurements taken on the casing stones of the

northeastern joints, the space between these stones is *one fiftieth of an inch* wide. According to Miroslav Verner of *The Pyramids: The Mystery, Culture, and Science of Egypt's Great*

Monuments, an ancient people either understood, or accidentally happened upon, unbelievably advanced mathematical calculations in their day:

If we imagine a circle whose radius is the height of the pyramid, then the

circumference is identical with the base of the pyramid. This could be achieved only if

the wall had the correct angle, and everything had to be calculated in advance. We can

conclude that although the ancient Egyptians may have never precisely defined the value of *pi*, in practice they used it.[27]

The very nature of a statement that says "everything had to be calculated in advance"

followed by the acknowledgment that we can "conclude" (translation: we can "know") that the Egyptians didn't really understand *pi* reveals its own fallacy. Either they did have the mathematical genius to order up building plans that would defy the intelligence associated with the humans of that day and we just don't know about it, or someone or something else of higher intelligence designed it. If we had any idea—any clue whatsoever—how ancient Egyptians

would have been able to construct such a mathematically advanced building, then it wouldn't be one of the Seven Wonders of the Ancient

World.

But there are other bizarre issues to note about the puzzling origin of this location entirely unrelated to its construction.

There are three internal chambers: the king’s chamber, the queen’s chamber, and the

“Grand Gallery.” Unlike other pyramids of ancient Egypt, the walls of the Great Pyramid are completely bare of any markings or hieroglyphs, except for the following: The Djedi Research Project of 2011 discovered a couple of small images smeared in red paint in a shaft leading to the queen’s chamber, visible only to the robot camera designed to “snake” through the shafts in the walls. The appearance of it to a layman observer is curiously of a bulbous-headed being

descending down a beam of light,[28] but it is likely much less ominous than that. It is known that red-paint graffiti is common to structures in Giza. Because this find is so recent, and access to the graffiti is limited, little information is known about these symbols, and most believe they are simply stone mason identifiers left behind by the builders. The drawings have gained a lot of attention, and experts in hieroglyphic interpretation have been consulted. It has been admitted

that the symbols are very hard to read, but the leading interpretation of them at this time is that they are numeric. In an article by *NBC News*:

Luca Miatello, an independent researcher who specializes on ancient Egyptian

mathematics, believes he has some answers.

“The markings are hieratic numerical signs. They read from right to left, meaning

100, 20, 1. The builders simply recorded the total length of the shaft: 121 cubits,”

Miatello told Discovery News.…

[And much later in the article:] According to James P. Allen, a Wilbour Professor

of Egyptology and Chair of Egyptology and Ancient Western Asian Studies at Brown

University, the figures can indeed show the numbers indicated by Miatello.

“The signs are not easy to read, but Dr. Miatello's reading is entirely plausible,”

Allen, author of “The Ancient Egyptian Pyramid Texts, Writings from the Ancient

World” and a leading expert on hieroglyphics, told Discovery News.[29]

In addition, Egyptologist Richard Howard-Vyse discovered the “Khufu cartouche,” a

small writing in the same red, ochre paint identifying Khufu as the pyramid’s builder. This discovery launched an immense controversy as it was later claimed by some, most notably by ancient-astronaut theorist Zecharia Sitchin, to be a forgery by Howard-Vyse. Many respected Egyptologists (including Zahi Hawass and Selim Hassan), as well as the British Museum and

Egyptian Museum, however, give little attention to this argument, agreeing that the cartouche is authentic.

Other than these markings, the Great Pyramid has no hieroglyphic symbols anywhere that

we know of today. Well, then, it appears we have enough evidence to *perhaps* tie the structure to

the order of Khufu, evidenced by at least the papyrus and the cartouche. But we still don’t understand the unusual nakedness of the walls that in any

other circumstance would be carved or painted all throughout when contrasted with comparable pyramids of that day.

How unusual.

Let’s go deeper…

The writers of the Old Testament were Egyptian exiles to begin with. Does the Bible,

itself, then note anything of relation to this pyramid? In Revelation 7, we read:

And after these things I saw four angels standing on the four corners of the earth,

holding the four winds of the earth, that the wind should not blow on the earth, nor on the sea, nor on any tree. And I saw another angel ascending from the east, having the seal of

the living God: and he cried with a loud voice to the four angels, to whom it was given to hurt the earth and the sea, Saying, Hurt not the earth, neither the sea, nor the trees, till we have sealed the servants of our God in their foreheads. And I heard the number of them

which were sealed: and there were sealed an hundred and forty and four thousand of all

the tribes of the children of Israel. (Revelation 7:1–4)

The number “one hundred and forty four thousand” is an interesting place to start. Of the

remaining polished limestones found at the pyramid (those that were not taken away after the earthquake of AD 1303), archaeologists were able to imaginatively reconstruct the casing stones’

original building pattern, and they concluded that there would have been one hundred and forty-four thousand polished casing stones on the external

layer of the design. From the *Occult Physics* website, we read:

Now it is very intriguing to note also that the numeric sequence as begins 144 has yet an additional link to The Great Pyramid, over and above a reference to just its original number of casing stones. And this, is by way of the ratio between the *arc length distance up from the equator to the pyramid*, and the *side length of the structure*:

Latitude Arc—(equator to pyramid at 29:58:51 N) = 10885789.794 feet

Base side length of pyramid = 755.961873 feet

10885789.794 / 755.961873 = **14399.91906**

The value here is almost exactly **14400**, which is indeed 144000 divided by 10.

Now in terms of evaluating the strength of the relationship, one may note that the

level of error is very small indeed. Only a minor repositioning of the structure or slight alternation to the surveyed base side length of the pyramid would generate a perfect

14400 / 1 ratio. In light of this association, then, the chosen number of casing stones

appears to have been set at ten times the value of the ratio between the latitude arc of The Great Pyramid and its base side length.[30]

But the location, according to *Ancient Code*, actually *was* exactly aligned with the North Pole:

The ancient builders of the Great Pyramid placed the structure with incredible

precision: Aligned true north. The Great Pyramid is the most accurately aligned structure

in existence and faces true north with only 3/60th of a degree of error. The position of the North Pole moves over time and the pyramid was exactly aligned at one time. Even more

interestingly, **the Great Pyramid** is located at the center of the land mass of the earth.

The east/west parallel that crosses the most land and the north/south meridian that crosses the most land intersect in two places on the earth, one in the ocean and the other at the

Great Pyramid.[31] (bold text in original)

In a prophecy from Isaiah 19:19–20, we learn of "an altar to the Lord in the midst of the

land of Egypt, and a pillar at the border thereof to the Lord." The word "pillar" has been synonymous with "pyramid" in historic literature. Interesting that the Great Pyramid of Giza is built on the border that separated the old kingdoms of Upper and Lower Egypt. Of all places.

The only pillar that has *ever* stood on that border that we know of is the Great Pyramid…in *Giza*, which also happens to be Arabic for "border."

While we're on a roll, let's consider another short list of mathematical anomalies. Any of these, on its own, might be seen as a fascinating coincidence. All of these facts applying to the same structure *together*, however, cancels out happenstance.

1. Every Hebrew character has an associated numeric value assigned

to it. When all the letters of the Hebrew text referenced in the

Isaiah 19:19–20 prophecy are added together, we arrive at the sum

of 5,449. The height of the Great Pyramid, in inches, equals

5,449.[32]

2. The length of each pyramid baseline in the Hebrew cubit is 365.2422 cubits. This is exactly the number of days in our solar year once you figure in the additional day in February every four years on leap year.[33]

3. Each ten feet traveled up the slope of the pyramid's exterior equals a nine-foot increase in altitude. Multiplying the total altitude of the pyramid by ten, raised to the ninth power, we arrive at 91,840,000. The distance from the earth to the sun is 91,840,000 miles.[34]

4. "The difference in the position of the stars in the heavens in relation to earth differs by about fifty seconds of arc each year, and for the stars to complete a cycle and return to the exact position where they were at any one period of time requires a time period of 25,827 years. When the diagonals of the pyramid's base, in pyramid inches, are added together, the sum total is exactly 25,827 inches.… [The Great Pyramid's architect] knew that the earth revolved around the sun, that all planets, stars, and galaxies were traversing a circular path, and the entire mass was revolving in a greater circle around some common focal point."[35]

5. The measurements of the Ark of the Covenant in Exodus 37:1—"two cubits and a half was the length of it, and a cubit and a half the breadth of it, and a cubit and a half the height of it"—are the

exact same volume/cubic capacity of the coffer/sarcophagus in the

King's Chamber of the Great Pyramid.

This list is not even a scratching of the surface. If this book were entirely devoted to the findings associated to the architectural genius of the Great Pyramid, we would go on for another fifteen chapters about the baffling details. Others have already done this, like our late dear friend Noah Hutchings, who penned *The Great Pyramid: Prophecy in Stone* years back (we republished

an updated edition of this book in 2011 by the same title). Such books as these take the necessary time to really lay out the incomprehensible facts, figures, calculations, and relations to biblical prophecy that this building deserves, bringing its readers to a higher level of appreciation for the implications behind the Great Pyramid than we can here. But, by now, we have at least covered enough material to raise the argument that, although we *do not* believe it was the Ra of *Stargate,* the authors of this book can justifiably say that there were builders in those days who assembled profoundly mystifying edifices that were well, *well* beyond the physical capability of mere ancient-civilization humans with ropes, pulley carts, and six-pack abs, and well beyond the intelligence capabilities of abacus-carting architects.

To add to all of this, and to bring our trail of thought back to where we started, I will

relay a brief story covered first by *The London Times* and later elaborated upon by Noah Hutchings:

Scientists who have been trying to x-ray the pyramid at Giza, near Cairo, are

baffled by mysterious influences that are throwing into utter confusion the reading of

their space age electronic equipment. For 24 hours a day for more than a year, in the

hopes of finding secret chambers thought to exist within the 6 million-ton mass of the

pyramid, they have been recording on magnetic tape the pattern of cosmic rays reaching

the interior. The idea is that as the rays strike the pyramid uniformly from all directions, they should, if the pyramid is solid, be recorded uniformly by a detector in the chamber at the bottom. But if there were vaults above the detector, they would let more rays through

than the solid areas, thereby revealing their existence. More than $1 million and

thousands of man-hours have been spent on the project which was expected to reach a

climax a few months ago when the latest IBM 1120 computer was delivered to Ein

Shams University, near Cairo. At Ein Shams, Dr. Amr. Gohed, in charge of the installation at the pyramid, showed me the new IBM 1120 computer surrounded by

hundreds of tins of recordings from the pyramid, stacked up in date order. Though

hesitant at first, he told me of the impasse that had been reached. It defies all the known laws of science and electronics, he said, picking up a tin of recordings. He put the tape

through the computer, which traced the pattern of cosmic ray particles on paper. He then

selected a recording made the next day and put it through the computer. But the recording

was completely different. “This is scientifically impossible,” he told me. After a long

discussion, I asked Dr. Gohed, “Has this scientific know-how been rendered useless by

some force beyond man’s comprehension?” He hesitated before replying, then said:

“Either the geometry of the pyramid is in substantial error, which would affect our

readings, or there is a mystery which is beyond explanation—call it what you will,

occultism, the curse of the pharaohs, sorcery, or magic—there is some force that defies

the laws of science at work in the Pyramids!”[36]

Inexplicable comments like these from leaders of the scientific community like Dr.

Gohed tend to lend more credence to a “force at work” in locations like these than when they originate from Bible scholars—who are already usually open-minded to the supernatural realm and its influence on this planet. Earlier this year, an article from *Ancient Code* entitled

“International ‘Scan Pyramids’ Project Reveals NEW Anomalies at Egyptian Pyramids” gave a

recent update to those of us that may assume Dr. Gohed’s glitch was due to outdated IBM

equipment:

A group of international researchers is studying the pyramids of Egypt and their intricate design with innovative and “fresh” technologies that could help unravel century-long mysteries surrounding the pyramids of Egypt, their builders, and their true purpose.

According to preliminary results from Egypt, the equipment used by researchers

has detected thermal "points of interest" in the northern facade of the Great Pyramid at

Giza…and on the western face of the Red Pyramid of Dashur.

"The primary result tells us that we have some good news," Antiquities Minister

Mamduh al-Damati said at a news conference. "Although no discoveries have yet been

made, scans have revealed several anomalies which indicate that a discovery could be

made in the pyramids by the end of 2016."[37]

The article goes on to discuss the project's determination in revealing what these thermal anomalies mean, and the leading suspicion at the time of this writing is that a hidden chamber within the pyramid will be unearthed.

In another article, however, we read about a more sensational opinion regarding the

potential implications of these thermal anomalies, and its prospective links to the Ark of the Covenant, which, as we stated earlier, holds precisely the same volume/cubic capacity of the coffer/sarcophagus in the King's Chamber. From "The Ark of the Covenant: A Device Used to

Power the Great Pyramid of Giza?":

The fact that there are thermal anomalies inside the Great Pyramid is an enigma

since it was believed that the temperature inside the pyramid was always constant and

equals the average temperature of the earth, 20 Degrees Celsius (68 Degrees Fahrenheit).

Pyramids' effects are connected to gravity, which is pushing down from the sky, explains David Wilcock. "Gravity is a river of energy flowing into the Earth…and that

energy can then be harnessed by building a funnel-like shape," causing gravity's fluid

energy to swirl and create a vortex current, he continued.

Is it possible that the great Pyramid of Giza was, in fact, a giant energy machine?

Built with ancient technology that today is lost?…

Interestingly, there are numerous researchers that suggest if the construction

details of the Ark are those which were recorded in the past, then the ark would

basically resemble an electrical capacitor with two electrodes separated by insulator

drivers.…

Ancient astronaut theorists agree that it is very likely, given the indications we

have about both the Ark of the Covenant and the Great Pyramid of Giza, that the Ark of

the Covenant mentioned in the Bible could have acted as some sort of machine…[that]

could have been used together with the great Pyramid of Egypt to form some sort of

power plant and maybe this—as weird as it may sound to many—was the true purpose of

the Great Pyramid of Giza, to act as a giant power plant, which was able to harness

incredible energy and act as an ancient amplifier, sending energy towards the countless

“receivers” put in place by ancient man.[38]

Ten years ago, some of these ideas regarding portals, interplanetary travel, gateways from one dimension to another, and doorways into other realms may have been taken very seriously by most of the world. Thanks to CERN, however, now even scientists are starting to not only

believe in the supernatural, but pour their resources into a technology that will dabble in it like never before—to the detriment of the innocent.

The Great Portal of CERN

CERN’s Large Hadron Collider (LHC) is the largest single machine in the world, located on the border of France and Switzerland. Its purpose is to accelerate subatomic particles by the speed of light and force them to travel in a loop where they will then collide—in an attempt to recreate conditions that scientists believe applied during the earliest moments in the universe (the Big Bang and similar theories)—whereupon the origins of all life as we know it on earth today might be finally studied and understood. They have already discovered the Higgs boson (in 2012), frequently referred to as the “God Particle,” said to be the single particle that makes up all matter and led to the birth of the universe.

However, this hunt for proof of earth’s origin is not their only focus, and the authors of this book are *by no stretch of the imagination the only ones who believe this to be true*, as the secular media—rife with nonbelievers, scientists, atheists, and skeptics of the supernatural—is in a buzz all over the globe discussing CERN’s seemingly paranormal associations. Although

CERN does not publicly profess to an agenda in relation to God and Satan, evil versus good, the spiritual realm as it would be described by Bible-believers, and so on, Adam Barker of

TechBubble wrote of CERN last year: “with the LHC, CERN are EXPECTING to find other

dimensions and open portals to these dimensions; if you have the image of *Stargate* in your head right now, you are spot on.”[39]

There’s that movie again…

Perhaps you remember the dream that the patriarch Jacob had as he was fleeing his brother, Esau:

Jacob left Beersheba and went toward Haran. And he came to a certain place and

stayed there that night, because the sun had set. Taking one of the stones of the place, he put it under his head and lay down in that place to sleep. And he dreamed, and behold,

there was a ladder set up on the earth, and the top of it reached to heaven. And behold, *the angels of God were ascending and descending on it*!… Then Jacob awoke from his

sleep and said, “Surely the Lord is in this place, and I did not know it.” And he was afraid and said, “How awesome is this place! This is none other than the house of God, *and this is the gate of heaven*.” (Genesis 28:10–17, ESV; emphasis added)

This ladder described in the first book of the Bible describes a portal from heaven to

earth, through which God’s angels—interdimensional and spiritual beings from another reality—

were traveling. When Jacob wakes, he refers to the location as a “gate,” much like today’s trendy terms “gateway” and “stargate.” Barker

comments: “One of CERN’s goals is to recreate Jacob’s Ladder and reopen a portal that is said to have existed between Earth, Mars, Venus, and Saturn when the planets were in alignment many years ago…but whether Jacob’s Ladder really existed, CERN are pretty sure that other dimensions do and have made it their goal to ensure that they open the portals up to them.”[40]

Sergio Bertolucci, the official director for Research and Scientific Computing at CERN,

was asked about this extradimensional doorway by *The Register* (a London and New York operated science and technology journal), and he didn’t hesitate with an enlightening response:

“Out of this door might come something, or we might send something through it.”[41]

John 1:51 (ESV) says, “And he [Jesus] said to him, ‘Truly, truly I say to you, you will see heaven opened, and the angels of God ascending and descending on the Son of Man.’”

Prophecy, in numerous parts of the Bible, refers to this coming day when the portals *will* be opened, and spiritual entities *will* pass to and from the earth. If this is true, and the verses are accepted for their literal meaning and not written off as some kind of poetic allegory as some scholars have claimed, then the idea of CERN playing with gateways is a major alarm. And if, as CERN claims, they are only out to explore space, time, matter, particles, and the origin of our known universe and planets from exclusively a scientific, Darwinian-related perspective—if their agenda is unrelated to Bible prophecy entirely—then what is with all the mystical

symbolism they knowingly associate themselves with? Wouldn’t it be more appropriate for them to proudly display a polished statue of a particle or some artist’s depiction of the Big Bang instead of the statue of Shiva?

For those of you who have not yet heard about this controversial piece of art CERN

proudly exhibits between buildings 39 and 40 near the main building of their operations, it stands as the most visible and celebrated imagery behind their work. Shiva is the Hindu god of

destruction, and a symbol of Shakti, or “life force.” He is known very well as “the Destroyer.” In 2004, the government of India, which has had a long-standing friendship with leaders behind the CERN project even before the completion of the LHC, gifted CERN with a bronze work of art

depicting Shiva as Nataraja, the “Lord [sometimes “King”] of Dance.” The dance Shiva is

performing in this sculpture is the Tandava—a dance that provides the source of the creation cycle, the preservation of all life and existence, and the termination of all life and existence. The Rudra Tandava is a dance that specifically displays Shiva’s sadistic personality as he rains down the ultimate destruction upon a weary planet.

From the unveiling of this Nataraja on CERN grounds, controversy has been launched from all sides, including irreligious groups, and questions abound as to CERN’s motive in its exhibition. So far, CERN’s responses have most often pointed to the notion that the statue was simply a gift to an international and multicultural scientific institution, and they show it off out of gratitude. If pure appreciation were the only contributing factor, the implications behind the symbolism might continue to disturb some, but it is likely that the issue would at least be dropped by many irreligious groups that could find it within themselves to accept a motive of gratefulness. The plaque at the side beside the statue, however, reads in part: “Hundreds of years ago, Indian artists created visual images of dancing Shivas in a beautiful series of bronzes. In our time, physicists have used the most advanced technology to portray the patterns of the cosmic dance. The metaphor of the cosmic dance thus unifies ancient mythology, religious art and

modern physics.”

Right there, out in the open for all to see, is a direct correlation between the Hindu

perception of Shiva hundreds of years ago (which is the concept of destroyer we have already explained) and “our time” unifying “ancient mythology, religious art and modern physics.”

Had CERN mere gratitude in their exhibit, the plaque would have said a word of thanks,

and there would not have been the need to blatantly associate the destroyer of all life in the universe with the kind of modern physics science that CERN is dabbling with now.

Additionally, a significant section of CERN is built upon the Saint-Genis-Pouilly, a

commune in the Ain department of France. “In Roman times [the Saint-Genis-Pouilly] was

called Apolliacum. The name Pouilly comes from the Latin ‘Appolliacum,’ with the Latin suffix

‘iacum’ denoting possession. The town and a temple were dedicated to Apollyon—the destroyer

(Shiva/Horus).”[42] (Apollyon is also the “angel of the bottomless pit” referred to in Revelation 9:11.)

CERN’s logo also draws a lot of attention. It does not take a scholar to observe the

uncanny resemblance of the circular logo with three clockwise tails as the layering of three “6”

numerals. One does not even have to finish typing “CERN logo” into an online search engine right now, and the predictive text tools of the engine will already fill in numerous “666” and

“CERN mark of the beast” guesses at what a person is looking for. The topic of the CERN logo is *that hot*. The explanation from a reported

“CERN insider” is the following: CERN’s logo is taken from the design of synchrotron particle accelerators.

Originally the design was going to resemble the outline of a schematic of a synchrotron,

but the problem with that, CERN’s logo would have looked like a black hole. Not good.

So what we did with this logo design was remove a couple lines, shorten and angle a line

in the opposite direction, off center it all, then add another circle with a line sticking up to help break up the original design.[43]

For some, this clarification inspires a big “whew” moment as we can forget all evil or

eschatological symbolism in the logo. For others, however, this clarification only makes the admission that CERN started with a “particle” symbol and specifically set out to alter it to what it appears to be now, marrying the “particle”—the icon of their current work—with a universally recognized “666” design. Far be it for them to insinuate a black hole with their emblem, but insignia suggesting a relation to the mark of the beast is acceptable.

Chapter 2

Metaphysics of Portals

In the 2005 science-fiction action film *Doom* (staring Dwayne “The Rock” Johnson), the narration opens with an incredible discovery—an ancient teleportation device dubbed “Ark” is found that links planet earth with Mars. An archeological team goes through the stargate and begins research at the Olduvai station on Mars. While investigating humanoid remains

uncovered on the red planet, the team unwittingly opens a door, and all hell breaks loose with a legion of demonic creatures coming through the portal to destroy them (if this sounds like a plot based on the book co-authored by Tom Horn, *On the Path of the Immortals*, it is because the makers of *Doom* borrowed from the same myths and historical phenomena *Path* investigates concerning widespread accounts of dimensional portals or “doorways” that beings of good and evil have reportedly passed through since the dawn of time). In another title also in print from Defender Publishing (*The Ahriman Gate*, a novel by Tom and Nita Horn), the planet Mars is fictionalized as a prison-world wherein entities who rebelled against the Creator God during a past distant war are sealed. When the Ahriman “stargate” is opened, enclosures on the red

planet’s crust slide apart, releasing, among other things, Quetzalcoatl, the Feathered-Serpent

deity (dragon) of ancient Mesoamerica. (*Ahriman’s* narrative was partially based on a fanciful theological premise that the location from which Lucifer originally fell was a star system or planetoid). The narrative of *Ahriman* is also fascinating in light of Hesiod’s *Theogony,* which describes the place of imprisonment of the Titans:

And there, all in their order, are the sources and ends of gloomy earth and misty

Tartarus and the unfruitful sea and starry heaven, loathsome and dank, which even the

gods abhor.

It is a great gulf, and if once a man were within the gates…. There stands the

awful home of murky Night wrapped in dark clouds. In front of it the son of Iapetus

stands immovably upholding the wide heaven upon his head and unwearying hands,

where Night and Day draw near and greet one another as they pass the great threshold of

bronze…. And there the children of dark Night have their dwellings, Sleep and Death,

awful gods. The glowing Sun never looks upon them with his beams, neither as he goes

up into heaven, nor as he comes down from heaven. (Lines 736–744)

Hesiod's *Theogony* takes on additional mysteries when one considers that the Bible

characterizes the place of imprisoned rebel angels using the same words Hesiod employs to

describe the place of Titan gods—"Tartarus" and the "Bottomless Pit" (see 2 Peter 2.4;

Revelation 9.1–11, 11.7, 17.8, 20.1–3). Couple this with eerily similar discoveries on the actual moon Iapetus, and you understand why a number of researchers are open to the possibility that synthetic-looking planetoids such as Iapetus may be, as they appear to be, artificial. Is something bound inside them?

In Greek mythology, Iapetus was the son of Uranus and Gaia, and father of Atlas, Prometheus, Epimetheus, and Menoetius. Because Atlas was a "father of mankind," Iapetus was understood in myth to be a progenitor, a creator god, of Homo sapiens.

Italian astronomer and engineer Giovanni Domenico Cassini discovered Saturn's moon

Iapetus in 1672 using his small refracting telescope. Cassini correctly deciphered the

disappearing and reappearing act of Iapetus as due to the moon synchronously rotating with one hemisphere continuously facing Saturn. Iapetus is also divided by a great gulf formed by a giant walled threshold at its equator. This feature was discovered during a New Year's Eve flyby in 2005 when NASA's Cassini spacecraft photographed the 1,300 kilometers (808 miles) long and 20 kilometers (12 miles) high rim stretching over one-third of the moon's equator. No other moon in the solar system has been found with such a stunning feature: literally a 60,000-foot-high wall. Compare this fact again with Hesiod's description of a great threshold of bronze: It is a great gulf…. murky Night wrapped in dark clouds. In front of it the son of

Iapetus…where Night and Day draw near and greet one another as they pass the great

threshold of bronze…. And there the children of dark Night have their dwellings, Sleep

and Death, awful gods. The glowing Sun never looks upon them with his beams, neither

as he goes up into heaven, nor as he comes down from heaven (Lines 736–744)

Giant wall on Iapetus equator

In *The Search for Life in the Universe,* Tobias Owen (the man at NASA who discovered the face on Mars) and Donald Goldsmith wrote: “This unusual moon [Iapetus] is the only object in the Solar System which we might seriously regard as an alien signpost—a natural object

deliberately modified by an advanced civilization to attract our attention.”[44]

In an email to me (Tom Horn) in 2005 before he died of a brain tumor, David Flynn

made an interesting point about this including the possibility of the “bottomless pit” (mentioned above) actually being a “star” (or an extraterrestrial object) in heaven:

Tom, you are intrepid enough to address an issue many are afraid to

investigate…. And you are right about gates [and that various beings have come through

them]….

[Flynn then quotes from Revelation 9] “And he opened the bottomless pit…. And there came out of the smoke locusts upon the earth… and the shapes of the locusts [were]

like unto horses prepared unto battle; and…their faces [were] as the faces of men. And

they had hair of women, and their teeth were as of lions…” (Rev[elation] 9:1–8)

[Flynn continues] Here is described an army of beings with mixed genetics

[transgenics], but all species of terrestrial origin. The similarities between the “locusts with faces of men” and the modern reports of “insectoid” aliens [descending through

dimensional gates] stand out in John’s prophecy…. It is assumed that the locusts of

Revelation 9 “ascend” from a bottomless pit somewhere on earth because the story of the

locust invasion begins with a “star” falling from heaven to earth and an angel with a key.

The Greek word translated “fall” is *Pipto*, which means to “descend from a higher place to a lower.” If the star itself *IS* the bottomless pit, Revelation 9 could be describing an extraterrestrial object—a mother ship if you will—moving into orbit around earth with

myriad beings. From this same place in Scripture the word “bottomless” is *bathos*, often translated as “height” and the word “pit” is *Phrear*. A phrear in Greek mythology is an orcus, a deep chasm bound by a gulf where fallen beings are imprisoned…. Revelation 12

explains the surety of Satan and his angels coming down from heaven to the earth in the

future. For now, they wait… somewhere out in space.

One can easily imagine, if Flynn is correct, how a deceptive “Official Disclosure of

Aliens” could be introduced to the world by a sudden, inexplicable movement of an extra solar planetoid and the human hysteria that would follow if Iapetus or a similar “moon” unexpectedly turned and started racing toward earth! (Note, David Flynn’s complete work on this and other intriguing research is available in a single large volume, *The David Flynn Collection,* at

SkyWatchTVStore.com). At the core of such contemplation is a more immediate and disturbing proposition related to our current research: according to ancient biblical and extrabiblical writers, such strategic locations *do exist both in heaven and on earth* where “doorways” operate via unknown science and/or metaphysics, and powerful entities exist behind them.

Now, imagine for a moment what an astonishing claim that is—that mysterious doors or

“gates” exist, and that behind them supernatural entities await! Furthermore, under extraordinary circumstances, such entities have and can traverse from those dimensions into ours. If one believes the Bible, this disturbing fact is reality, it is based on past history and inspired Scripture, and it is prophesied to happen again (more on that later).

Such was the strong assertion from a Christian member of the Apache Nation following

my (Tom Horn) appearance on Sid Roth’s *It’s Supernatural,* which came on the heels of a trip to the International Observatory atop Mount Graham in Arizona during research for our acclaimed investigation, *Exo-Vaticana*. I had said (an assumption on my part) on Sid Roth’s program (and others) that the reason the Apache Nation had opposed the Vatican, NASA, and Arizona State University when those organizations first proposed building the Mount Graham International Observatory (MGIO) in southeastern Arizona's Pinaleno Mountains in the late 1980s was that the Native Americans were there first, and that some of their ancestors had lived and

died on that property. Thus Mount Graham was something like a graveyard or “holy ground,” and they did

not want heavy equipment disturbing the resting place of their forerunners. Hardly had I

concluded that assertion before I was contacted by a member of the San Carlos Apache Tribal Counsel who wanted me to know that what I had said was only partially true, and that the bigger issues had to do with the “Mountain Spirits” or “Gaahn” that enter and exit a doorway on Dzil Nchaa Si' An (Mount Graham) to provide spiritual guidance and mystical health to the Apache,

and grander still, that Mount Graham itself is one of the four holiest mountains in all the world to American Indians because it is, according to them, what we might call a stargate—a strategic geographic location through which entities have passed from the great beyond into our reality since time immemorial. On vetting this information and finding this concept truly is held by the Apache and other tribes, the conspiracy meter went off the Richter Scale in my mind with regard to why the Vatican had insisted on that mountain in particular, going so far as to fight through US federal court to win approval for the MGIO. It appeared that, once again, Rome’s Holy See (as documented in the groundbreaking documentary from Gen6 Productions, *The Unholy See*) had secured dominance over a location where history and lore claim a portal into a parallel dimension.

With that discovery made, during a twenty-four-month investigation (2013–2015),

SkyWatch TV, Defender Films, and Defender Publishing sent teams of field researchers, writers, camera operators, theologians, and a private detective to remote locations across the Four Corners region of the United States (Arizona, Colorado, New Mexico, Utah, and the tribal

governments of the Navajo Nation and Ute Mountain Ute Tribe) to meet with academics such as Dr. Don Mose Jr. (Navajo scholar and third-generation medicine man who told us the oldest

legends of the Anasazi), other tribal leaders, historians, and native guides to establish the earliest oral and written accounts behind the indigenous peoples. Our quest was twofold: First, to

establish whether the Bible supported this hypothesis—that fixed traversable gateways of heaven and earth exist where supernatural interlopers move; and second, to learn whether there was corroborative information on this side of the seas in support of the middle eastern (biblical) narrative involving these gateways and the beings (including Watchers, fiery-flying Seraphim, and giants of Old Testament fame) that had come through them in the past, as the Apache at

Mount Graham believe. In other words, was the story of Genesis chapter 6 a universal one? Were the "Days of Noah" global in scope?

What we uncovered in support of these questions—both the subject of scriptural backing

as well as universal accounts—was beyond our wildest hopes. So far as American history, one can get a glimpse of the documentation in the following excerpt from our best-selling book, *On the Path of the Immortals*, where we recount a fragment from the day I sat in a traditional Hogan on the Navajo reservation and interviewed Dr. Mose:

With that, Joe quickly unhooked the camera from the tripod, sat down next to Carl

and Dr. Mose, and proceeded for nearly two hours to record what has only ever been

allowed a few times in history before: the white man putting on film the official and

legendary stories of creation, giants, a great flood, the reptilian deceiver, and more, all from the voice of the nation's medicine man. Dr. Mose even sang to us in the antiquated

tongue and recited parts of what I would call “Old Testament history” paralleled in their

earliest antiquity using the Navajo language.

Not only did Dr. Mose substantiate the age-old and globally recorded story of

“those who come through portals” and the impact they have had on biblical and global

history past and present, and not only did he weave Navajo Indian myths and legends

seamlessly with our understanding of the six days of creation, the arrival of Nephilim,

and their connection to judgment by a global flood followed by the repopulating of

peoples around the world and a second incursion of giants, but there were several

instances in which, when I pushed him for greater detail, Dr. Mose went off script (he

actually delineated from the official Navajo storyline) to provide greater consistency

between history and the way the Bible itself recorded certain events.

For example, as the medicine man was following the “official storyline” about the Anasazi and how they didn’t disappear but rather migrated and became the modern

Pueblo Indians, I expressed doubts about that theory, and he responded by grinning just a

bit and saying, “Well, I probably shouldn’t tell you this, but—”. He then proceeded to tell us the older stories that his grandfather had repeated about these mysterious peoples

actually disappearing after they came under mind control from a reptile with a halo….

Another case in point is when I told him what we had learned from the Apache

about cannibalistic giants and God destroying them in the Flood. “Oh, yes,” he said,

reaching for an illustrated book he authored that is used in the Nation’s schools and

libraries. He opened it to show us an artist’s depiction of a giant that had stood between thirty and forty feet tall: “There was a time when the earth was infested with such great

giants and alien gods that destroyed and ate the people,” he said. “Some of them were in

human form; others were monsters and [human-animal hybrids].” He followed this with

the story of the White Shell Woman, who gave birth to two of the most important

characters in Navajo mythology—the twin, miracle-performing sons named Naayéé’

Neizghání (whose name means “Slayer of Alien Gods”) and his twin brother,

Tobadzischini. Together, these two great warriors killed many of the giants, hybrids, and

monsters that were wantonly destroying human life. As Dr. Mose described these ancient

tales, I could not help but think of David killing Goliath and then later other giants with his mighty men.

The storyteller then paused and said, “You know, when the Christian missionaries

first came to America and told our people their stories of the giants and the Great Flood, we smiled and let them know we had already heard these tales long ago from our

ancestors.” Perhaps this fact is why so many American Indians find it natural to convert to Christianity or why the Nations seem to have no issues with many of their tribal elders and educators being converts to Christianity.[45]

Also in *On the Path of the Immortals*, we worked on the question of whether the Bible itself supports the broader idea of fixed locations where entities enter and exit this world, including intelligence that is bound behind gateways awaiting a particular moment when those doors will be opened to allow their arrival as part of end-times Great Tribulation. While such concepts may seem strange to a few readers, the Bible supports the notion that the earth is a

“holding tank,” and that intelligent beings exist beneath its surface and sometimes move between its interior and exterior through “gates.” We know the location of the Old Testament Paradise as well as Sheol-Hades lies beneath the crust of the earth. Other places in the Bible depict an underwater reality, including where “the four angels are bound in the great river Euphrates”

(Revelation 9:14), as well as where God has imprisoned until the Day of Judgment those

Watcher angels that so famously fell (2 Peter 2:4; Jude 6). Job 26:5 also speaks of “dead things”

that move beneath the waters, and when the woman of Endor communicated with underground

spirits, they ascended up from “out of the earth” (1 Samuel 28:13).

Thus the ancient belief that beings and underworld regions were under the control of a

supernatural “gatekeeper” associated with Hades is both fascinating and enlightening when

compared to these Scriptures, especially when we consider the words of Jesus in Matthew

16:17–18: “Blessed art thou, Simon Barjona [son of Jonah]…thou art Peter, and upon this rock I will build my church, and the *gates* of hell shall not prevail against it” (emphasis added). We do not believe it is coincidental that Jesus referred to Jonah when tying Peter’s confession to gates and the ultimate victory of the church. In the Old Testament, Jonah 2:6 tells of his journey to the

bottom of the sea to a “city of gates” (Hebrew *bĕriyach*, “a fortress inside the earth, a prison”) from which God delivered him. There is no doubt about where Jonah was, as he prayed to God out of the “belly of hell”—the underworld prison of the dead. Jesus made the same connection to earth gateways, Jonah, and His mission for the church again in Matthew 12:40 when He said:

“For as Jonas was three days and three nights in the whale’s belly; so shall the Son of man be three days and three nights in the heart of the earth.” This type of reasoning—that the physical planet serves as a repository in which intelligences reside—is and was fundamental to ancient biblical interpretation.

We find another reference to supernatural “gates” and possible fixed earthly locations for their geography in Genesis 28:12. Jacob had just left his dying father, Isaac, having tricked him into believing Jacob was actually Esau and therefore “stealing” the elder twin’s “blessing.”

While on his journey, Bible archaeologists mostly agree that Jacob chose to "rest" eleven to twelve miles north of current-day Jerusalem in an area today called Beit El. Weary from his travels, Jacob stopped for the night in the Judean Hills, where he chose a rock to serve as his pillow:

And he lighted upon a certain place, and tarried there all night, because the sun

was set; and he took of the stones of that place, and put them for his pillows, and lay

down in that place to sleep.

And he dreamed, and behold a ladder set up on the earth, and the top of it reached

to heaven: and behold the angels of God ascending and descending on it.

And, behold, the LORD stood above it, and said, I am the LORD God of Abraham thy father, and the God of Isaac: the land whereon thou liest, to thee will I give it, and to thy seed;

And thy seed shall be as the dust of the earth, and thou shalt spread abroad to the

west, and to the east, and to the north, and to the south: and in thee and in thy seed shall all the families of the earth be blessed.

And, behold, I am with thee, and will keep thee in all places whither thou goest,

and will bring thee again into this land; for I will not leave thee, until I have done that which I have spoken to thee of.

And Jacob awaked out of his sleep, and he said, Surely the LORD is in this place;

and I knew it not.

And he was afraid, and said, How dreadful is this place! this is none other but the

house of God, and this is the gate of heaven.

And Jacob rose up early in the morning, and took the stone that he had put for his

pillows, and set it up for a pillar, and poured oil upon the top of it.

And he called the name of that place Bethel: but the name of that city was called

Luz at the first. (Genesis 28:11–19)

Bethel is the same Transjordan area Elijah the prophet had been in just before being

caught up into heaven by an angelic “chariot of fire, and horses of fire…and Elijah went up by a whirlwind into heaven” (2 Kings 2:11). Might the area around Bethel and Jordan thus be the location of an angelic portal?

Of course, the most infamous “gate” location in biblical history is the Tower of Babel.

Genesis 11 says:

And the whole earth was of one language, and of one speech.

And it came to pass, as they journeyed from the east, that they found a plain in the

land of Shinar; and they dwelt there.

And they said one to another, Go to, let us make brick, and burn them throughly.

And they had brick for stone, and slime had they for morter.

And they said, Go to, let us build us a city and a tower, whose top may reach unto

heaven; and let us make us a name, lest we be scattered abroad upon the face of the

whole earth.

And the LORD came down to see the city and the tower, which the children of

men builded.

And the LORD said, Behold, the people is one, and they have all one language;

and this they begin to do: and now nothing will be restrained from them, which they have

imagined to do.

Go to, let us go down, and there confound their language, that they may not

understand one another’s speech.

So the LORD scattered them abroad from thence upon the face of all the earth: and

they left off to build the city.

Therefore is the name of it called Babel; because the LORD did there confound the language of all the earth: and from thence did the LORD scatter them abroad upon the face

of all the earth. (Genesis 11:1–9)

I (Tom Horn) wrote a series of articles about ten years ago involving the construction of

this tower and the larger question of “gateways,” where I built upon the fine research by our dearly departed brother and semiotics genius, David Flynn:

In his opus, *Cydonia: The Secret Chronicles of Mars* (now part of the oversized single volume *The David Flynn Collection*), Flynn connected Nimrod’s construction of the Tower of Babel to the rebel planet Mars:

Nimrod…a giant of the race of Nephilim…authored the plan for the tower….[and

was] associated in myth with Nergal, the Babylonian God of Mars.…The Tower of Babel

was a tower to Mars.

Symbolism used by the mystery schools illuminated the writings of Italian poet Dante,

who wrote of the connections between the Tower of Babel, giants and Mars. Intriguingly, Dante identified Mars with Satan. *Paradiso Canto* IX:127–142:

Florence, the city founded by Mars, that Satan who first turned his back on his

Maker, and from whose envy such great grief has come, coins and spreads that accursed

lily flower, that has sent the sheep and lambs astray, since it has made a wolf of the

shepherd.

The ancient Cabiri (Gibborim) who built Cyclopean walls and megalithic

fortresses took many forms, but they all originated from the same place. They came down

from heaven to the earth. According to ancient Sumerian myth, when Nergal the God of Mars was ejected from heaven he descended with… demons….

Thus not only was Nimrod a Nephilim…not only did he design the Tower of

Babel ("gate of the Gods")…not only was he associated with Mars and built the tower of

Babel to the rebel prison planet…but he, like other giants, was daimonic (demonic) in

origin. The significance of this cannot be overlooked. Babel was a Nephilim gateway and

it is prophesied to be the future location from which "gates" open and "giants" return.

(emphasis added)

The Lord inspired Moses to write about this epic event, and the description and hidden

clues offer just enough information to discern many truths about Babel. This was not merely a tower intended to reach heaven due to its height. This was a stargate, whose design was inspired by forbidden knowledge. Nimrod had deciphered the secret to unlocking a portal (what some

might call an Einstein-Rosen Bridge) that would lead to the heights once envied by Satan: the Sides of the North—the Heavenly Throne. The text admits the builders wanted to create a

structure "whose top may reach unto heaven." When the Lord came down and saw what was

happening, He said, "Nothing will be restrained from them, which they have imagined to do"

(Genesis 11:6). That is a curious comment if the meaning here is only that the tower would reach into the “sky.” Structures had been built around the world since the dawn of time extending significantly skyward, yet so far as we know none of them ever elicited such an intriguing response from God, saying, “nothing will be restrained from them, which they have imagined to do” or a translation like “nothing that they propose to do will now be impossible for them”

(ESV). And what was it Nimrod imagined to do? Build a tower whose top would penetrate

Shamayim—the abode of Watchers; God. And just what sort of nefarious construction project

would allow that to happen and arguably prompt more divine intervention than the atomic bomb?

Josephus weakly suggests that the Tower of Babel was being made waterproof and that this was an act of rebellion against God, defying Him for sending the Flood and preparing for survival of future acts of punishment should they come. Yet what if another meaning here—“which they

have imagined to do”—fits more perfectly with Scripture and history? Something that has to do with the physicality of heaven—as in the dwelling place of angels?

Gary Stearman—popular anchor for Prophecy Watchers television—believes like many

scholars do that something was going on at Babylon with regard to “angelic portal technology.”

He writes:

Under the leadership of Nimrod, the early post-Flood societies were obviously

attempting to reunite with the fallen spirit-beings, who were within their recent historical memory…they were on the verge of achieving their primary goal—not just to build a

tower, but to break through a barrier to the realm of heaven, itself. They were apparently about to realize some success in penetrating the dimensional veil that separates one

aspect of heaven from the earth!

This "tower" would enable men to realize their darkest imaginings. And what had

they imagined to do? Simply to renew their contact with the "sons of God," as their

predecessors had done before the Flood.[46]

Perhaps, as Stearman suggests above, Nimrod was attempting to open a doorway with the

peripheral proximity of a parallel brane in the cosmic superstructure astrophysicists call the *bulk*.

According to modern physics, the second heaven (or astral plane) might be only a micrometer away in a fifth dimension. On the one hand, such ideas bring comfort to some, to conceptualize

God and His angels as always in such close "physical" proximity. On the other hand, the same notion disturbingly adds relevance to the prophecies of Isaiah (chapter 13) regarding earthly Babel-gates opening at the end of time with giants and transgenic monstrosities rushing out of them. Either way, the text above could imply the ever-present apotheosis ambition of man: to use the tower as a transformational technology employed by Nimrod and his minions to become like gods and "make us a name." In *Forbidden Secrets of the Labyrinth*, Mark Flynn explains, "The tower was not necessarily a device that would cause men to become gods immediately, but an intradimensional conduit that would once more bring the assistance of

the Watchers who would make men “gods” like themselves through the knowledge they provided. ”[47] The Watchers’

primary offense (other than illicit procreation with humans) was the promulgation of forbidden knowledge, weapons, and dangerous technology (1 Enoch 8). It seems most probable this

knowledge was intended to open a channel to the second heaven and the abode of the Watchers as the text clearly indicates.

It should also be noted that Nimrod is the template for a panoply of “dying gods”

worshiped under the names Osiris (a play possibly on Asshur, which may be another name for Nimrod, the Assyrian), Heracles, Horus, Tammuz, Mithras, Cernunnos, Marduk, and others.

When the languages were confused at the tower, the bewildered builders and terrified citizens, who no doubt believed Nimrod to be a god who would bring more gods to their city and recreate the “golden age” spoken of by their ancestors, took the story and told it with variations upon the names, seeding the legend of the “dying god” throughout all civilizations of the world. All the legends end with a promise that their god(s) would return in the final days and inaugurate a new age—and yes, that is the *Novus Ordo Seclorum* prophecy on the Great Seal of the United States.

Nimrod’s stargate may have been very strategically located to accomplish this very task by being constructed directly over Enki’s abode, the Abzu (Abyss). The Mighty Hunter Nimrod, along with the combined efforts of the “one mind” of mankind, used fallen angel technology and nearly opened the Abyss—but the Lord intervened personally, an extremely rare event, because the Abyss must and will remain closed until the Lord permits it to be opened. And we who live in these days—days that fit the bill for the “last days” read about the modern technology and foolish experiments (CERN, for instance, as discussed later) that may serve as parts of the final

“key” to unlocking this hideous hell-hole.

How Do They Return? And Does It Involve Gates?

In between the “first incursion” of giants and the prophesied future return of these hybrid monstrosities was a so-called “second incursion” of Nephilim, Anakim, Gibborim and even

Nimrod, the builder of Babel. This post-Flood presence of giants is confusing to some because 2

Peter 2:5 states that all of the ungodly were destroyed in Noah’s Flood, and Genesis 7 confirms all souls but those on board the ark were killed in the deluge, including the original Nephilim. So how did they (do they?) come back? And does this relate to metaphysical gates?

Some believe the answer to the second (and future) incursion of giants is simple—

different Watchers repeated the original sin of their angelic brothers after the Flood, giving birth to a second crop of Nephilim. Hebrew scholars point out that the phrase from Genesis 6:1–2,

“when men began to multiply…the sons of God saw the daughters of men that they were fair;

and they took them wives of all which they chose,” can accurately be translated “whenever men began to multiply,” and thus the sin of the Watchers could have been (and can be) repeated following the Flood. Genesis 6:4 may imply this when it says, “There were giants in the earth in those days [the days before the flood]; **and also after that [after the Flood], when the sons of**

God came in unto the daughters of men [again?], and they bare children to them, the same became mighty men which were of old, men of renown” (emphasis added). If this is how the

giants returned immediately after the Flood, it makes sense that much fewer were generated the second time around as this second generation of Watchers would have been aware of and feared the judgment that befell the

original Watchers, which were now confined “in everlasting chains under darkness unto the judgment of the great day” (Jude 1:6).

A second and more intriguing possibility as to how the giants came back after the Flood

involves Watchers’ occultism and the possibility that high-level magic was used to “raise” dead Nephilim back into bodies of flesh. While some may consider that idea too incredible to

conceive, there is cause to accept at least the possibility.

How so? According to the book of Jubilees 8:1–5, Kainam, Noah’s grandson found the

antediluvian secrets of the Watchers after the Flood:

In the twenty-ninth jubilee, in the first week, in the beginning thereof Arpachshad

took to himself a wife and her name was Rasu'eja, the daughter of Susan, the daughter of

Elam, and she bare him a son in the third year in this week, and he called his name

Kainam. And the son grew, and his father taught him writing, and he went to seek for

himself a place where he might seize for himself a city. And he found a writing which

former [pre-flood generations] had carved on the rock, and he read what was thereon, and

he transcribed it and sinned owing to it; **for it contained the teaching of the**

Watchers. … And he wrote it down and said nothing regarding it; for he was afraid to speak to Noah about it lest he should be angry with him on account of it. (emphasis

added)

The secret teachings of the Watchers recovered by Kainam could have contained a formula for raising the spirits of dead Nephilim in use with "magic beds" and "magic bracelets"

(if Jubilees, considered canon by some and revered by Jews, is to be believed). The Bible itself seems to allude to the efficacy of this ancient dark art, though the knowledge today may be confined only to occult orders such as Freemasons, who do claim the mystical ability to raise

"Osiris" from the underworld. The Hebrew prophet Ezekiel made an important statement about

"magic bands" (*kesatot*), which were cryptically used to dispel (magically eject) the souls of men in order to replace those spirits with resurrected ones from the dead (as in the Rephaim or dead Nephilim).

Will ye hunt the souls of my people, and will ye save [Hebrew, chayah, "restore

to life"] the souls alive that come unto you…to slay the souls that should not die, and to save [restore to life] the souls alive that should not live…? Wherefore thus saith the Lord God; Behold, I am against your [*Kesatot*, "magic bands" used for binding and loosing souls], wherewith ye there hunt the souls to make them *fly* [*Parach*, "to fly away," or alternatively "to sprout up **from out of the ground**"] and I will tear them from your arms, and will let the souls go, even the souls that ye hunt to make them fly (Ez[ekiel]

13:18b–20). (emphasis added)

The *kesatot* was a magic arm band used in connection with a container called the *kiste*.

Wherever the *kiste* is inscribed on sarcophagi, it is depicted as a sacred vessel (a spirit prison?) with a snake peering through an open lid. How the magic worked and in what way a spirit was ejected and replaced with a spirit from the dead is a mystery (unless, again, modern occultists have these demonic incantations in their possession today). Pan, the half-man/half-goat god that guarded the entrance to the "gates of hell" at the base of Mount Hermon—beyond which the

Rephaim (dead Nephilim) were imprisoned—is sometimes pictured kicking the lid open and letting the snake (spirit?) out. Such loose snakes were then depicted as being enslaved around the limbs and bound in the hair of the Bacchae women, the servants of the demonic god Dionysus.

Whatever this imagery of Pan, the serpents, the imprisoned spirits, and the magic *kesatot* and *kiste* actually represented, a noteworthy verification of the magical properties represented by them is discussed in the scholarly book *Scripture and Other Artifacts* by Phillip King and Michael David:

In the closing verses of Ezekiel 13 the prophet turns his attention to magic

practices whose details remain obscure. Two key terms are *kesatot* and *mispabot.* … The *kesatot* are worn on the arms, while the *mispabot* are made "on the head of every height"

(?), which has been understood to mean "on the heads of persons of every height"

[including those of *great* height; giants, offspring of the Watchers].…

In modern times archaeological discoveries and texts from Babylonia in particular

have shed further light on what might be involved: G. A. Cooke cited Hellenistic

figurines from Tell Sandahannah (Mareshah) in Palestine with wire twisted around their

arms and ankles…and a magical text from Babylonia that speaks of white and black wool

being bound to a person or to someone's bed.… J. Herrmann [notes] that both words can

be related to Akkadian verbs, *kasu* and *sapabu*, which mean respectively "to bind" and

"to loose." Herrmann also drew attention to texts in which these verbs were used in a

specifically magical sense.… This indicates that, whatever the objects were, their

function was to act as "binders" and "loosers" in a magical sense, in other words as

means of attack and defense [of spirits] in sorcery.[48]

The text in Ezekiel is believed to specifically refer to Dionysian or Bacchanalian magic, which is important in the context of this book when combined with a related two-part "binding"

and "loosing" question from God in Job 38:31: "Canst thou bind the sweet influences of

Pleiades, or loose the bands of Orion?" The first part of God's challenge to Job here involves the star (gate) cluster Pleiades, which in mythology represented the seven sisters or teachers of the infant Dionysus, the very priestesses of whom used the *kesatot* and *kiste* to magically "bind"

those spirits that Ezekiel said God would "loose." The second part of God's proposition to Job is equally meaningful, "Can you…loose the bands [stargate] of Orion?" Studies in recent years have made intriguing findings that suggest the Giza Plateau—which according to Zahi Hawass (former secretary general of Egypt's Supreme Council of Antiquities) was known to ancient

Egyptians as the “House of Osiris, Lord of the Underground Tunnels”—was designed to reflect the constellation Orion. The three pyramids of Giza do appear to be laid out in a pattern

reflecting the three stars of Orion, which is none other than the heavenly representation of Osiris.

In Greek mythology, the god Orion (Osiris) fell in love with Apollo’s sister, Diana

(Artemis). Apollo did not like this arrangement and tricked Diana into shooting an arrow into Orion’s head. When she saw what she had done, Diana placed the dead Osiris among the stars and transformed him into the constellation Orion. Thereafter, Orion was thought to be the “Soul of Osiris.”

Earlier history connects the constellation Orion to the Sumerian legend of Gilgamesh,

identified in the Bible as Nimrod—the giant “mighty hunter” before the Lord—that fantastic personality who built the Tower of Babel gate and who in later mythology was also called Osiris and Apollo. If Job 38:31 is therefore interpreted according to these ancient astrological and mythological renderings, it would have God asking Job if he could bind the magic bands

(*kesatot*?) of Osiris-Dionysus or loose the bindings (*mispabot*?) of the mighty hunter, the giant Orion/Gilgamesh/Nimrod/Osiris/Apollo. What is potentially more explosive is the deep possible implication from this text that not only can God do this—that is, loose the forces bound at Giza and the constellation Orion—but that, when the correct time comes, He *will*. Think Revelation chapter 9.

Another intriguing aspect related to ancient Watchers magic and the attempt to incarnate

giants or “gods” into bodies of flesh may be connected with magic beds and fertility rituals, such as the giant bed of King Og (Deuteronomy 3:11) and a

bed identical to his found at the location of the Tower of Babel. Dr. Michael S. Heiser, in his powerful new book, *The Unseen Realm: Recovering the Supernatural Worldview of the Bible*, notes:

For an ancient Israelite reader with a command of Hebrew and a worldview that

included the idea that supernatural opposition to Israel had something to do with preflood events in Mesopotamia, several things in this short passage would have jumped out

immediately. None of them are obvious in English translation.

First, the most immediate link back to the Babylonian polemic is Og's bed

(Hebrew: *ʿeres*). Its dimensions (9 × 4 cubits) are precisely those of the cultic bed in the ziggurat called Etemenanki—which is the ziggurat most archaeologists identify as the

Tower of Babel referred to in the Bible. Ziggurats functioned as temples and divine

abodes. The unusually large bed at Etemenanki was housed in "the house of the bed" (*bit erši*). It was the place where the god Marduk and his divine wife, Zarpanitu, met annually for ritual lovemaking, the purpose of which was divine [procreation] blessing upon the

land.

Scholars have been struck by the precise correlation. It's hard not to conclude that, as with Genesis 6:1–4, so with Deuteronomy 3, those who put the finishing touches

on the Old Testament during the exile in Babylon were connecting Marduk and Og in

some way. The most transparent path is in fact giant stature. Og is said to have been the

last of the Rephaim—a term connected to the giant Anakim and other ancient giant clans

in the Transjordan (Deut[eronomy] 2:11, 20). Marduk, like other deities in antiquity, was

portrayed as superhuman in size…. The dimensions were roughly six by thirteen feet…

Doak goes on to note that scholars who have detected this connection conclude

that the point of matching the dimensions was that the biblical writer wanted to compare

Og with a cultic prostitute. This not only is an awkward referent, but fails to consider the wider Babylonian polemic connected back to Gen 6…

Sacred marriage rituals included the blessing of fertility for both the land and its

inhabitants. The ritual was also concerned with maintaining the cosmic order instituted

by the gods. Consequently, in addition to the giantism element, a link between Og and

Marduk via the matching bed dimensions may also have telegraphed the idea that Og was

the inheritor and perpetuator of the Babylonian knowledge and cosmic order from before

the flood. This would of course tie him back to Gen 6:1–4 and its apkallu polemic. In any

event, the size of Og's bed cannot be taken as a precise indication of Og's own

dimensions. There is much more at play here.[49]

While Dr. Heiser does not consider whether these magic beds played a role in anything other than symbolic fertility rituals, Marduk's wife Zarpanitu's (alternatively zēr-bānītu) name is interpreted as "creatress of seed" and is associated with literal fertility and possibly the ancient idea of divine birth. Whether the Marduk ritual specifically connected the giant bed of Og and

the identical one from the infamous Tower of Babel with the raising of Rephaim into bodies of flesh cannot be proven at this time, but is highly suggestive in this writer's mind. Archaic magic performed for the express purpose of "raising the mighty ones" to life again sits at the core of many ancient themes, including Egyptian and modern Freemasonic ones. Perhaps this is why the scholars behind the Douay-Rheims Bible translated the prophet Isaiah as praying, "Let not the dead live, let not the giants rise again" (26:14).

What Are They Trying to Awaken at CERN and in Switzerland?

The Gotthard Base Tunnel began in 1947 with a curious sketch by Swiss engineer Carl Eduard Gruner.

During World War II, the Gruner Group (formerly Gruner Brothers) constructed

railways, powers plants, and irrigation systems, but it was Gruner's imagined shortcut through the base of the alps, connecting the Swiss towns of Erstfeld and Bodio by burrowing beneath the St. Gotthard Massif in the central Swiss Alps, that would prove to be the company's greatest design. The Gotthard Base Tunnel (GBT) is the world's deepest (1.42 miles) and longest tunnel (route length of 35.5 miles with a total of 94.3 miles when all shafts and passages are included).

The tunnel consists of two parallel passages, each moving in a single direction on a single track.

The GBT passes directly beneath St. Gotthard's Pass, a strategic north/south corridor that connects northern and southern Switzerland. Prior to the

construction of the modern-day tunnels, including the Gotthard Rail Tunnel built in the 1880s, the only way to pass through this

treacherous region was to cross the Devil’s Bridge (*die Teufelsbrücke*), which is aptly named considering the strange ceremony that accompanied the opening of the newest tunnel beneath the Massif. A legend regarding this Devil’s Bridge (according to oral histories cited at Wikipedia[50])

says this:

The legend itself is related by Johann Jakob Scheuchzer (1716). According to Scheuchzer, he was told a local legend according to which the people of Uri recruited the

Devil for the difficult task of building the bridge. The Devil requested to receive the first thing to pass the bridge in exchange for his help. To trick the Devil, who expected to

receive the soul of the first man to pass the bridge, the people of Uri sent across a dog by throwing a piece of bread, and the dog was promptly torn to pieces by the Devil. Enraged

at having been tricked the Devil went to fetch a large rock to smash the bridge, but,

carrying the rock back to the bridge, he came across a holy man who “scolded him” (*der ihn bescholten*) and forced him to drop the rock, which could still be seen on the path below Göschenen. A modern retelling was published by Meinrad Lienert, *Schweizer*

Sagen und Heldengeschichten (1915). According to Lienert’s version, a goat was sent across the bridge instead of a dog, and instead of the holy man, the Devil, when he was

taking a break exhausted from carrying the rock, came across an old woman who marked

the rock with a cross, forcing the Devil to abandon it and flee.[51]

Erstfeld lies a twisty 186 miles or so from Geneva (CERN), and Bodio (the southern

portal for the new tunnel) just as far (or farther, if one chooses to go through Erstfeld first—a laborious journey, but one that Google maps apparently suggests). The connection to Geneva's Large Hadron Collider must be made, primarily because of the bizarre opening ceremony that was live-streamed to the entire world on June 1, 2016. So, let's unpack the imagery within that occult dance, beginning with a call to unite the religions of the world by conducting an

"interfaith" blessing of the tunnel beside a statue of St. Barbara (the patron saint of miners). St.

Barbara is another curious component in this bizarre ceremony. Traditionally, her veneration and worship is said to have begun in Bohemia. According to C. E. Gregory:

Barbara Cathedral in Kuttenberg (Bohemia) built between 1388 and 1518 in the old silver city. This was thought to be the most likely source of the Barbara adoration.

The cathedral was built around an already existing Barbara altar in an area with many

Barbara altars present. Kuttenberg has for centuries had on its coat of arms St. Barbara

above the crossed hammer and gad [Schlaegel und Eisen—the classical symbol of

mining].[52]

Allegedly, Barbara lived during the third century AD in Asia Minor in Nicromedia (near

Baalbeck). Though her father planned to marry her off to a wealthy and influential friend who served "the old gods" of paganism (if they lived near

Baalbeck, one can surmise which entities her father was actually serving), but Barbara chose Christianity instead—dying a martyr’s death for her trouble when she was tortured by the Roman pro-consul and then beheaded by her father.

According to Wikipedia, Barbara is also considered one of the “Fourteen Holy Helpers,” a group of super saints whose core members are three virgin martyrs: St. Catherine, St. Margaret, and, of course, St. Barbara. Barbara is associated with a tower, because her father shut her up in one to keep her from the world whilst he arranged her marriage to his pagan buddy. Catherine is linked with “the wheel,” a torture device known as “the breaking wheel,” which (when Catherine was placed upon it) shattered, leaving the torturer, Maxentius, no choice but to behead her. And Margaret is associated with “the Dragon,” because Satan in the form of a dragon had tried to eat her, but her cross irritated his tummy, so he disgorged her and Margaret was put to death.

Three virgins who serve as super saints, and a tower, a wheel, and the dragon. It sounds

like a hand from a tarot deck! It is also a dark echo of the three faces of the pagan moon goddess: the virgin/maiden (in white), the harlot/mother (in red and often pregnant), and the crone/widow (an old woman dressed in black).

Connected to this idea of a “triple goddess” is a legend called “The Three Bethan,” a triune goddess worshiped throughout Bavaria that is eerily similar to this notion of three virgin super saints. According to an article at druidry.org, these three supposedly Christian virgins gave all their money to build a chapel, but are actually pagan in origin:

“Beten” in modern German means “to pray.” Probably the act of worshipping the

Bethen was so important and widespread that their name left its mark on the word for

praying to them. Firpet or Firbet, the name of the third woman on the Leutstetten image,

in modern German sounds pretty much like “Fürbitte” (intercession).

The Bethen were venerated especially in the presence of trees, wells and stones.

This finds its expression in the terms “Bethelbäume” (Bethen trees), “Bethenbrunnen”

(Bethen wells) and “Bethensteine” (Bethen stones). As we know, worship at wells, in

forest groves and near unusual stones was a widespread feature in Celtic and Germanic

religion, so we can safely assume that the Bethen cult has pre-Christian roots.[53]

Now, why would we even care about pagan triple goddesses, if our topic for this chapter

is about a tunnel beneath an Alpine pass? It is because of the unusual ceremony that inaugurated this dual tunnel system, and the interfaith call to worship that occurred in front of St. Barbara (whose “triple goddess” identity is made clearer in the ceremony itself). Three women—three aspects of the same moon/fertility goddess.

The “Triple Goddess” is not restricted to Alpine mythology:

Greek: Hebe/Hera/Hecate (also Artemis/Selene/Hecate); Aphrodite Urania/Aphrodite

Pontia/Aphrodite Pandemos

Roman: Luna/Diana/Proserpina; Phoebe/Diana/Hecate; Juventas/Juno/Minerva

Egyptian: Hathor/Bast/Sekhmet; Hathor/Nephthys/Isis

Hindu: Parvati/Lakshmi/Saraswati

Irish: Badb/macha/Morrígu

Mesopotamian: Inanna/Ishtar/Astarte; Asherah/Astarte/Anat

Arabian (pre-Islamic): Al-Lat/Al-Uzza/Manat

Norse: Freyja/Frigg/ Skaði[54]

Hecate, mentioned above, was the Titan earth-mother of the wizards and witches, and

illustrates the triple connection between the sky, earth, and underworld realm of evil

supernaturalism. As the daughter of Perses and Asteria, Hecate (Hekate) was the only Titan to remain free under Zeus. She was the mother of the wizard Circe and of the witch Medea. She was characterized by the unknown and by the night-terrors that roamed the abandoned and

desolate highways.

Other revealing facts about Hecate include:

Hecate was often depicted as a young maiden with three faces, each pointing in a

different direction—a role in which she was the earth-spirit that haunted wherever three

paths joined. As the "goddess of three forms," she was Luna (the moon) in heaven, Diana

(Artemis) on earth, and Hecate of the underworld.

At midnight, Hecate's devotees would leave food offerings at intersections for the

goddess (Hecate's Supper) and, once deposited, quickly exit without turning around or

looking back. Sometimes the offerings consisted of honey cakes and chicken hearts,

while at other times, puppies and female black lambs were slaughtered and mixed with

honey for the goddess and her strigae. (Strigae were deformed, owl-like affiliates of Hecate that I wrote about in *The Gods Who Walk Among Us* and that Warner Brothers

featured from that book in one season of the long-running TV program *Supernatural* (and consequently invited me to travel to their studios in California to be part of a bonus disc with other "religious" experts on the release of that season to DVD, which I declined)

who flew through the night feeding on the bodies of unattended babies. During the day,

they appeared as simple old women—folklore that may account for the history of flying

witches. The strigae hid amidst the leaves of the trees during the annual festival of

Hecate, held on August 13, when Hecate's followers offered up the highest praise of the

goddess).

Hecate's devotees celebrated with festivals near Lake Averna in Campania, where

the sacred willow groves of the goddess stood, and they communed with the tree spirits

(earth spirits, including Hecate, were thought to inhabit trees) and summoned the souls of the dead from the mouths of nearby caves. It was here that Hecate was known as Hecate-Chthonia, (Hecate of the earth), a depiction in which she most clearly embodied the

popular earth-mother-spirit that conversed through the cave stones and sacred willow

trees.

Yet Hecate had other, more revealing titles, and these names are the subject of interest for the time being: 1) Hecate-Phosphoros ("The Light Bearer" [recalling another powerful

underworld spirit whose original name was Lucifer, "the light bearer"]); and 2) Hecate-Propylaia ("The One Who Guards the Gate").

The idea that mythological deities were perceived as guarding gates (and in some cases

imprisoned behind them), and that often these gods and goddesses were known by ancients as

"light bearers" is interesting in view of Scripture. The Hebrew translation of the word "Lucifer"

means "light bearer," and the New Testament speaks of Satan being "transformed into an angel of light" (2 Corinthians 11:14). A deeper study of Scripture supports the idea that spiritual forces that exist behind barriers or "gates" are located in the sky, sea, and physical earth. For instance, the book of Ephesus is a study of principalities and powers in "high places" and "powers of the air." In Nehemiah 9:6, the prophet speaks of more than one heaven: He saw the heavens and the

“heaven of heavens.” These are peripheral heavens, or divisions, as Paul refers to in 2

Corinthians 12:2, saying, “I knew a man in Christ above fourteen years ago…[who was] caught up to the third heaven.” As a Pharisee, Paul acknowledged three main “heavens,” which include a domain of air (the *kosmos*), or height, controlled by Satan. In pharisaical thought, the first heaven is simply the place where the birds fly, anything removed from and not attached to the surface of the earth. On the other end of the spectrum and of a different substance is the third heaven—the dwelling place of God. This is the place from which angelic spheres spread

outward. Between the first heaven where the birds fly and the third heaven “where dwells the throne room of God” is a war zone called the second heaven. This is a place of brass gates (see the Apocalypse of Zephaniah)—the kosmos or Hebrew equivalent of the Persian Ahriman-abad

(as in my novel *The Ahriman Gate*)—the place where Satan or Beelzebul (the “lord of the height”) abides as the prince of the power of the “air” (*aer*, the lower air, circumambient). This war zone is a sort of gasket heaven, the domain of Satan encompassing the surface of the earth. It was believed that from here kosmokrators could overshadow cities, intrude upon, and attempt to influence the affairs and governments of men. It was also believed that from the kosmos Satan’s minions also sought to close the gateways above cities so that God’s blessings could not flow

into them. Later, it was believed that when saints bent their knees in prayer, they had to pray through walls/gates of opposition contained within this gasket heaven.

In addition to heavenly gateways behind which fallen spirits dwell, Job 2.6 tells of Jonah going down to the bottom of the sea into a “city of gates” (Bariyach, a fortress in the earth, a prison) from which God delivered him. There is no doubt about where Jonah was as he prayed to God in Jonah 2:2 “out of the belly of hell” (Sheol—the underworld prison of the dead). This text is both fascinating and illuminating when compared to the words of Christ in Matthew 16:17–18:

“Blessed art thou, Simon Barjona [son of Jonah]…thou art Peter, and upon this rock I will build my church; and the gates of hell shall not prevail against it.” Matthew’s unusual choice of words connecting the rock upon which the church would be built, the name of Jonah, and the gates of hell is not a coincidence. Christ made the same connection to hell’s gateway, Jonah, and his mission for the church in Matthew 12.40: “For as Jonas was three days and three nights in the whale's belly; so shall the Son of man be three days and three nights in the heart of the earth.”

Besides the stories of Jonah and Christ, the Bible refers to nonhuman entities in

subterraneous locations as well, such as “the four angels which are bound in the great river Euphrates” (Revelation 9:14). Job 26.5 tells of the Rafa (Rephaim, fallen angels or offspring of such) who writhe “beneath the waters” (Interlinear Hebrew and Young’s Literal Translation).

Second Peter 2:4 and Jude 6 indicate that the subsurface of the earth is a prison or holding tank where God has bound certain fallen entities. Deuteronomy 18:11 warns that such spirits might seek to move beyond their confines through human intervention or invitation. The Hebrew

people were warned not to communicate with these spirits, and when the witch of Endor did so, they ascended up from “out of the earth” (1 Samuel 28:13).

Based on such texts, it is reasonable to believe that beings of superintelligence sometimes referred to as “gods” or the triple-goddesses mentioned above are equivalent to those whom the Bible depicts as moving through openings of sky, earth, and sea during interaction with this planet’s creatures. Some of these multidimensionals are more restrained than others, yet in most cases they can by invitation “ascend” or transcend these gateways, presenting themselves as

“light bearers” or “angels of light.”

Getting back to CERN, Switzerland, and the deeply disturbing Gotthard Base Tunnel

rituals, the worship of the triune goddess there was universal in scope, representing an

“interfaith” coalescing that we even see in Catholicism to a certain degree (a faith that dominated most of Europe at one time). The Virgin Mother who is later widowed or in mourning parallels the pagan ideas of virginity, fecundity, and death.

Following the “blessing” at the statue of St. Barbara, the surviving family members and

press, along with visiting dignitaries, also paid tribute to the NINE miners who lost their lives during construction of the tunnel. Nine is another occult signature number. It is 3 squared, which is a hidden 32, and it is 3 x 3, giving us a hidden 33, 3 + 3 = 6, the number of man, and this number added to 3 (6 + 3) gives an inverted 6, turning God’s creation on its head, an act and philosophy central to the “as above, so below” doctrine of the inverted tree of life (which is worshiped at the end of this ceremony).

Bodio’s “southern portal” provided the visiting dignitaries a disturbing parade of miners, erotic dancers, zombies, fallen angels, and a gay love-fest, all obeying the call of the “shepherd,”

whose yodels invoke the appearance of the event’s infernal master of ceremonies, the “Goat Man.” Portrayed by a young and energetic dancing male, this creature is shown with a Baphomet

headdress (a goat demon’s head) and a goat body costume (hairy pelt) with a formal tuxedo over top. This imagery is heavily evocative of the German and Bavarian Christmas demon, Krampus.

According to tradition, Krampus accompanies St. Nicholas on his midwinter rounds with the intent to steal boys and girls (putting them into a basket carried on his back), or he may decide to beat them with branches for being naughty. Maurice Bruce published a book on pre-Christian Alpine traditions in 1958, and he had this to say about this half-goat, half-demon entity:

There seems to be little doubt as to his true identity for, in no other form is the full

regalia of the Horned God of the Witches so well preserved. The birch—apart from its phallic significance—may have a connection with the initiation rites of certain witch-covens; rites which entailed binding and scourging as a form of mock-death. The chains

could have been introduced in a Christian attempt to "bind the Devil" but again they

could be a remnant of pagan initiation rites.[55]

Krampus, despite his negative imagery and proclivities, was wildly popular during the

holidays in Germanic and Alpine countries, so much so that an entire subgenre of greeting cards known as Krampus Grüsskarten (that invariably say "Grüss vom Krampus," translated into

English as "Greetings from Krampus") was created. Late-nineteenth-century and turn-of-the-

twentieth-century cards often feature Krampus with children, but also with buxom women (if those birch branches are phallic in nature, then this makes perfect sense). Many show the goat man in formal dress (tuxedo style cutaway formal coat and trousers) but with his usual horned goat face, and *always* with his tongue extended.

This "tongue-out" pose seems to be popular with ancient gods, whether they be Mayan,

Hindu, Babylonian, Egyptian, Greek, or even British (for some reason the coat of arms for the Prince of Wales sports both a lion and a unicorn with tongues extended). More than likely, this tongue position represents sexual lust (outside of God's design) and sex-magic (fornicating with

fallen angels), which is probably the real reason that old Krampus can't keep his tongue inside his head. The ancient symbol of "the horned god" referenced by Maurice Bruce in the above

quote allows us to connect our goat demon from the opening ceremony to CERN. Despite the

fact that the LHC (Large Hadron Collider) sits three to four hours down a twisty road from Erstfeld and Bodio, the horned god's circular logic and passion for human depravity, Hernunnos (sometimes spelled Cernunnos), the Green Man of British lore, simply had to make an

appearance.

Both Josh Peck and I (Tom Horn) and many other researchers have written extensively

regarding the end-game plans for tunneling beneath the earth and smashing atoms to smithereens as nothing more than a thinly veiled attempt to open portals, but the opening ceremony at

Gotthard makes it clear that *these portals are intended to release demonic entities!*

One side note here: The so-called "Rude Man Giant" formed in chalk in the downs of

Dorset, England, has also been identified with Hercules/Melkart,[56] the "Baal" who was worshiped on Mount Carmel. This gigantic chalk figure (with a rather impressive, erect phallus) bears a knobbed club in his right hand, and his left arm is extended as if he carries something.

Over time, the old lines around this left arm have faded, but in 1996, a scientific study of the massive figure revealed that he had indeed once held something upon his extended forearm. This study was corroborated in 2008, when archaeologists using special equipment to find the original chalk lines proved that a "cape" or perhaps a lion skin had once been draped upon the forearm.[57]

If true, then this enormous, aroused man may have been a tribute to Hercules, who is often depicted with a great club and the skin of the Nemean lion over his arm. What is this giant's name? The CERNE Abbas Giant, because it is located near a small village called Cerne Abbas, but the connection to Cernunnos and CERN is tantalizing, and the meaning of the word *abbas*

is "lion"—again connecting the Cernunnos "Green Man" to Hercules/Melkart. Finally, the slope upon which the giant reclines is called Trendle Hill. A "trendle" is an old Anglo-Saxon word for

"circle" (evocative of CERN's circles beneath the earth). Though not circular in shape, a large earthwork mound lies near the giant figure. Known as "the trendle" or "the frying pan," it is roughly rectangular in shape, and may be an Iron Age burial ground.

The twin tunnels of the Gotthard Base Tunnel commence with twin portals, each leading

to a one-way tunnel on a single track. These northward and southward journeys symbolize the death/birth/death cycle of the Green Man, who dies in the fall/winter and rises in the

spring/summer. The tunnel ceremony is all about sex rites and rebirth, leading to a new world order that is a complete reversal of the Judeo/Christian design. The triple goddess and the horned god, along with human sacrifice and a return to pagan worship, lie at the center of this nauseating ritual play. Horns and the moon goddess go hand in hand. Turn the lunar crescent on its side with the points facing upward, and you have horns. The lunar crescent is but one "face" of the triple goddess mentioned

above, and believe me she is a major player in this ceremony. But I get ahead of myself.

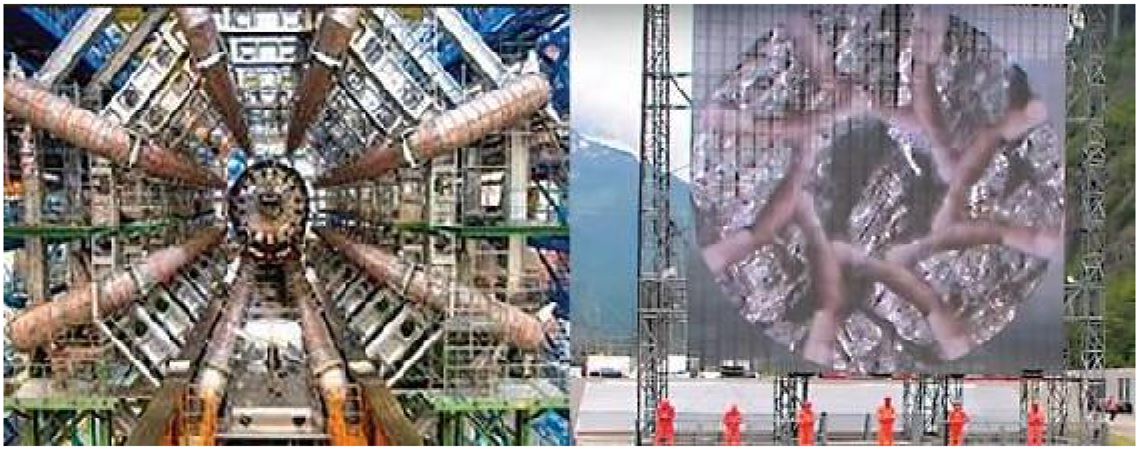
With this short introduction to the key players of our performance, let’s examine each

phase of this live-streamed rite. It commenced with the interfaith blessing as mentioned earlier.

Following this invocation of the triple-goddess, the shepherd aroused the horned man, who

strutted into the scene (complete with eerie red lighting and smoke—like he’d risen from the Abyss), accompanied by his hellish friends—many engaged in ritualistic sex and homosexual

poses. This parade of promiscuity also included a creepy “angel” that flew over top of some of the miners (presumably, representing the nine who died). Once the first phase (we’ll call it the opening of the portal) concluded, the various religious and political dignitaries boarded the train



and headed toward the northern terminus at Erstfeld. Note, that the choice to begin in the south and end in the north represents the ascension of something to the surface, that is the opening of the Abyss.

The primary performances took place on a massive outdoor stage in Erstfeld. This small

city lies within the canton of Uri in Switzerland. (Uri, by the way, is a type of extinct bison, echoing the "horned" theme once again). As the dignitaries settled into their comfortable

bandstand seats, a display lit up, showing what looked like a huge rock mountainside. Dancers dressed as miners "climbed" this rock face and dug into the earth, so to speak, to unveil what was beneath: a great machine, formed from human arms, that rotated and churned into various shapes and designs, many of which resembled the Large Hadron Collider at CERN.

Once this "opening" is achieved, the miners strip off their orange jumpsuit attire (males

only at this point, who are now bare-chested) and take up "arms"; that is, they use staves to perform a dance routine that looks like warfare. Once this battle concludes, a group of women join the men (the women wear only white underwear), and the entire dance troupe engages in a

frenzied display amidst a cloud of dust (simulating smoke, perhaps?) This frenetic dance arouses a giant.

Clearly, this endeavor is far more than Switzerland's braggadocio about an engineering

feat! The connection between CERN and ritualistic summoning of a sleeping giant (the "horned god" of Cernunnos or even Melkart—both are types of the rising/dying god, and Melkart "slept"

for half the year, which may be why Elijah told the priests of Baal to "call louder," because he might be sleeping).

As the giant wakens, the dancers perform ritualistic sex rites, many homosexual in nature.

Following this simulated copulation, the dancers fall to the floor as if dead.

On the screen behind the dancers, you can see three men dressed as miners. Just as the

dancers have died, these men also “die” after being chased by something that looks like smoke.

The three men (representing perhaps the nine who died in the construction of the tunnels) fall down a deep hole, as if traveling to hell as a sacrifice, while the dancers (now revived), continue their debauched choreography. As the dead miners descend, they are met with giant hands:

We then see three ghostly female dancers arise from the pit:

As these ghostly women fly above the dancers, a giant eye forms behind them on the

screen, and below a troupe of similarly ghostly dancers enter the stage area, wearing veils and skirts. At this point, men begin to assume female attire, demonstrating a reversal of traditional morals and roles as the spirit of the Abyss takes over. Whirling dervishes accompany these strange dancers, along with men wearing costumes that make them look as if they are covered in animal hair or straw. These strange “Cousin It” types creep alongside a long line of musicians who bear Alpine horns. It’s clear that the strange mashup of Alpine with Middle Eastern

traditions is intended to show an international revelry welcoming the risen “god” from the Abyss.

Behind the musicians and ghostly dancers, the horned god makes his grand entrance to

the stage, and following him (as if to bless him) is the first of the triune goddesses: the Maiden.

She is dressed in virginal white, and she trails behind the horned Cernunnos, “Goat Man.”

Like Krampus, the Goat Man wears a cutaway tuxedo with a red carnation, representing

his assimilation into our modern culture:

As the Goat Man dances with the strange collection of humanity on the stage below, his

image is also displayed on the monitor screen behind the troupe, showing the “true demonic spirit” behind the world’s return to pagan worship:

Notice that three scarabs fly before this screaming face (the spirit of Antichrist). Scarabs represent rebirth in Egyptian culture. The screen again changes, and the massive Antichrist face becomes a vortex of eyes. This Antichrist New World Order will shut down all free will, and the citizens of the world will be watched (the Watchers) every moment of every day.

As these Watchers rise up from the Abyss, the Goat Man embraces the Maiden,

impregnating her. He is then declared to be king as all bow down to worship him.

As with many pagan pantheons, the king then dies (remember that the "horned man" is a

type of rising/dying god, and many of these deities [once dead] are replaced by a child

[Osiris/Horus, Nimrod/Tammuz are examples]). After the Goat Man's "death," we see a strange Goat Child appear off to one side of the stage (as if he exists in a separate place):

Now that the Goat Child has been conceived, a chorus of men and women (some cross-

dressing) bring offerings of greenery and branches, and roots begin to appear on the large screen behind the main stage.

Massive roots appear, showing the occult inversion of the Tree of Life, and within a few

moments these roots transform the world into a massive machine. Men dressed as miners stand upon large pistons, and cogs within the great machine interconnect and drive these pistons. The New World Order that has been set into motion by the summoning of the satanic Goat Man

culminates with the reappearance of the Maiden, now adorned in blood red and heavily pregnant (the second face of the triune Goddess). She is the Whore of Babylon, ruling a world of

imprisoned humanity:

Note the horned figure just behind the Whore dancer. The Goat Man is now a Goat

Woman, again indicating a strange reversal of the old order. The ancient Watchers whom pagans worshiped as gods had the power to take both male and female forms, giving rise to the belief in

“twins” (Hermes/Aphrodite is one example of a twin god). As the Whore gives birth, the Goat Man appears to revive, only now his “goat head” has been removed, making him appear more

human. Remember, the Antichrist will appear to revive from a fatal “head wound,” and once

resurrected, will be worshiped by all the world. The inversion of form at this point shows men are dressed as women and women as men. The New World Pagan Order will stand the

Judeo/Christian world on its head, and the old gods will return to enthrall mankind using drugs, rampant sexual "freedoms," and secret knowledge.

This bizarre opening ceremony cost Switzerland *eight million euros* to stage —a

ridiculous amount considering the economic crisis facing nearly every nation of this bloc.

Sacrifice, sex magic, and science (CERN) form the hellish trinity of practices revealed in this detestable display. Who in their right mind would spend *even one euro* on such a strange

ceremony? Clearly, this live-streamed event was intended as a *worldwide ritual* and not a celebration of engineering.

The Goat Man is waiting to rise, and Switzerland's ritual tells us that unregenerate

mankind will welcome him when he emerges from the pit. The triune goddess will ride the

"beast system," and though this crazed play shows an ecstatic world population that works

together like a well-oiled, debauched machine, the truth is far more insidious. The Goat Man, the Antichrist, will enslave mankind using his own lusts as a key.

The beast you saw was, and is not, but is about to come up from the Abyss and then go to

destruction. The inhabitants of the earth—**all those whose names have not been written in the book of life since the foundation of the world—will be astounded** when they see that the beast was, and is not, but is to come (Revelation 17:8, NET, emphasis added).

We delve into dark passages with hands created by God Almighty. How He must weep at

mankind’s debasement of His marvelous design.

Chapter 3

CERN’s Hidden Mysteries

Apparent Occult Imagery

For some time now, ideas about possible occult connections with CERN have been presented on various internet blogs and opinion columns. In this chapter, we will examine some of these claims to see if any legitimate connections can be made. What is presented in this chapter is a small percentage of the total evidence available. It is important to view these claims with an open mind; we should not accept these claims blindly, nor should we dismiss them without reviewing all of the evidence.

CERN in Ancient Time

A large portion of CERN is found in a commune in eastern France called Saint-Genis-Pouilly.

This commune was actually identified as two separate towns.[58] Before it was given the name Saint-Genis-Pouilly in 1887, the two towns were named Saint-Genix and Pouilly. Interestingly enough, Pouilly used to be a small Roman city by the name of *Appolliacum.*

Before dissecting the evidence surrounding the ancient city of Appolliacum, we should

first delve into the history of Saint-Genis’ namesake. The origin of the name of the town of

Saint-Genis can be traced back to an individual who is surrounded by legends and mystery. It is generally believed the name Saint-Genis came from Saint Genest (also known as Genesius of

Rome), a legendary Christian martyr.[59] The legend of Genesius of Rome states that Genesius, prior to his conversion, was once the leader of a

theatrical troupe in Rome. In his plays, he would ridicule Christianity, especially certain rites. In one such performance, which was to be in front of an audience containing the Emperor Diocletian, Genesius was going to ridicule the sacrament of baptism.

The play began and Genesius took on his role of a person stricken ill. Two other actors

asked him what was wrong and Genesius said he felt he had a weight on him that he wanted

removed. Next, two different actors, dressed as a priest and an exorcist, entered. When the actors asked what he wanted to alleviate his sickness, Genesius expressed he wanted to be baptized. It was shortly after this point in the play when things became very real for Genesius. He broke the fantasy of the play, claimed to see actual angels, and asked to be baptized onstage for real. This completely outraged Diocletian. Genesius persisted in his newfound faith, even to the point of torture and death by beheading.[60]

Today, Genesius is regarded as the patron saint of actors, lawyers, barristers, clowns,

comedians, converts, dancers, epileptics, musicians, printers, stenographers, and torture victims.

His feast day is August 25.[61] Coincidentally, August 25 is the same day Paris was liberated by the allies in 1944.[62]

Though recognized as a legend, there is a kernel of truth behind the story of Genesius of

Rome. The very real Genesius of Arles is often combined with the legend of Genesius of Rome.

Genesius of Arles was a notary who was martyred by Maximianus in the year AD 303.[63] He is the patron saint of notaries and secretaries, and his feast day is also August 25. It is said, while he

was performing his secretarial duties, a decree of persecution against Christians was read out loud. Hearing this and becoming outraged, Genesius threw his tablets down to the magistrate's feet and fled. He was then captured and executed.

Interestingly enough, the account of this mysterious individual does not end here. It is

believed by scholars that Genesius of Arles is the same as the Spanish Saint Ginés de la Jara.

Statue of Saint Ginés de la Jara by "La Roldana"

If true, this adds more depth to the story. The legend states that after Genesius of Arles was beheaded, he was buried in Arles, but angels transported his head to Cartagena.[64] Another variation states that when

Ginés was decapitated in France, he picked up his own head and threw it into the sea, which carried it to Murcia.[65] These are thought as accounts to explain why stories of the same saint and the same cult are found in two different places. Also, the feast day of Saint Ginés de la Jara is August 25.

The cult of Saint Ginés is thought to originate from the cults of the Islamic jinn, the

Roman genius, or even with an ancient Carthaginian site dedicated to Ba'al.[66] In Islamic belief, the jinn are beings made of smokeless fire that come from Djinnestan, another universe beyond our own. From a Christian perspective, these jinn might be viewed as fallen Seraphim and

extradimensional in nature.[67] The genius, in Roman mythology, is the "individual instance of a general divine nature that is present in every individual person, place, or thing."[68] Lastly, the false god Baal-hamon was the supreme god of the Carthaginians. Baal-hamon was generally

identified with the Greek god Chronos, the Roman god Saturn, and the Semitic god Dagon.[69]

Interestingly enough, Baal and Dagon are both mentioned in the Bible frequently.[70]

The repetition of August 25 between the three representations of this mysterious

individual certainly causes one to take note. The only common theme with this particular date seems to be, strangely enough, space exploration. On this date in 1981, the Voyager 2 spacecraft made its closest approach to Saturn.[71] On August 25, 1989, the Voyager 2 spacecraft made its closest approach to Neptune. On August 25, 2012, the Voyager 1 officially left our solar system and became the first man-made object to enter interstellar space.[72] This apparent connection between the heavens and this mysterious individual of many names may have more parallels

when we look into the namesake of the second town, Pouilly.

Pouilly was a small Roman city that likely took its name from the Latin *Appolliacum.* It is believed it was given that name out of dedication to the god Apollon.[73] Apollon can be identified with the biblical Apollyon/Abaddon in the New Testament, the Greek god Apollo, and Nimrod of the Old Testament, who is sometimes known as "the man of many names." Just like Genesius (who could be called "the saint of many names"), Nimrod was also reported as being decapitated in the extrabiblical book of Jasher.[74]

The connections between Nimrod, Apollo, and Abaddon/Apollyon have been thoroughly

researched, but there are a few more interesting details not commonly discussed. Apollo was worshipped by the Romans as well as the Greeks. In Mauvières (Indre), a commune in central France, Apollo was equated with the Celtic god Atepomarus. These two characters were

combined to create Apollo Atepomarus, which can be translated as "Great Horseman" or

"possessing a great horse."[75] In the Celtic belief, horses were closely related to the sun.[76] The interesting thing to note is the connection between this idea of Apollo being associated with horses in France (where part of the LHC and CERN resides) and what the book of Revelation

states about Abaddon:

And the shapes of the locusts were like unto horses prepared unto battle; and on

their heads were as it were crowns like gold, and their faces were as the faces of men…

And they had a king over them, which is the angel of the bottomless pit, whose name in

the Hebrew tongue is Abaddon, but in the Greek tongue hath his name Apollyon.[77]

Given these descriptions, is it possible CERN will have something to do with the opening

of the bottomless pit described in Revelation 9? This is a possibility many researchers have looked into recently. We will come back to this possibility throughout this book and will look at

it in depth in the last chapter. Before we do, we can look into other mythology and see more potential connections to CERN.

CERN in Mythology

Interestingly enough, the word “cern” can be found in ancient mythology. For example, in

Dorset, England, there is the legend of the Cerne Abbas Giant, which is often associated with fertility.[78] In Celtic mythology, the god Cernunnos is depicted as having antlers (or horns).[79]

He is also shown with torcs around his neck and hanging from his antlers. Cernunnos is

sometimes recognized as the god of nature or fertility.[80]

Torcs are large, metal neck rings that were once associated with nobility and high social

status.[81]

Celtic Bronze Torc

The word "torc" comes from the Latin *torque* meaning "to twist."[82] It comes from this word because of the twisted shape many of the rings have.[83]

Because of the association with various creatures, Cernunnos is sometimes described by

scholars as "lord of the animals" or "lord of the wild things."[84] In biblical terminology, this could be understood as "lord of the beasts." Cernunnos is also sometimes recognized as

associated with sailors, commerce, and material wealth.[85] Some may recognize this as a possible connection with Revelation 18.[86]

Cernunnos has also been associated with Baphomet, an important deity in occultism.[87]

Baphomet, from Eliphas Levi’s *Dogme et Rituel de la Haute Magie*, 1854

Baphomet is also synonymous with the symbol of the goat pentagram, also known as the

“Sigil of Baphomet.”[88]

The Sigil of Baphomet

From Wikipedia:

The original goat pentagram first appeared in the book “La Clef de la Magie

Noire” by French occultist Stanislas de Guaita, in 1897. This symbol would later become

synonymous with Baphomet, and is commonly referred to as the Sabbatic Goat. Samael

is a figure in Talmudic lore and Lilith, a female demon in Jewish mythology. The

Hebrew letters at the five points of the pentagram spell out Leviathan, a mythic creature

in Jewish lore. This symbol was later adapted by the Church of Satan in 1969 and officially named the Sigil of Baphomet.[89]

The myth of Cernunnos is explained in further and more provocative detail in Italian

witchcraft. Here, Cernunnos is known only as “Cern” and has a brother named Lupus. Cern is seen as the stag god while Lupus is seen as the wolf god. It is said on the day of the spring equinox, Lupus was hit by a bolt of lightning shaped like an arrow while hunting a deer. Lupus then died and, on the next morning, rose from the underworld as the sun. Cern learned of his brother’s death and became the “god of this world.” The only thing left behind from the death of Lupus was his wolf skin, which was found in the forest by another hunter. It turns out the pelt had the magical power to transform men into wolves. The first man to wear this wolf pelt

became a priest of Lupercus and founded the society of the Luperci.[90]

We find a very interesting parallel to this story in the book of Jasher concerning Nimrod: And Cush the son of Ham, the son of Noah, took a wife in those days in his old

age, and she bare a son, and they called his name Nimrod, saying, At that time the sons of men again began to rebel and transgress against God, and the child grew up, and his

father loved him exceedingly, for he was the son of his old age.

And the garments of skin which God made for Adam and his wife, when they

went out of the garden, were given to Cush.

For after the death of Adam and his wife, the garments were given to Enoch, the

son of Jared, and when Enoch was taken up to God, he gave them to Methuselah, his son.

And at the death of Methuselah, Noah took them and brought them to the ark, and

they were with him until he went out of the ark.

And in their going out, Ham stole those garments from Noah his father, and he took them and hid them from his brothers.

And when Ham begat his first born Cush, he gave him the garments in secret, and

they were with Cush many days.

And Cush also concealed them from his sons and brothers, and when Cush had

begotten Nimrod, he gave him those garments through his love for him, and Nimrod grew

up, and when he was twenty years old he put on those garments.

And Nimrod became strong when he put on the garments, and God gave him

might and strength, and he was a mighty hunter in the earth, yea, he was a mighty hunter

in the field, and he hunted the animals and he built altars, and he offered upon them the

animals before the Lord. (Jasher 7:23–30)

Later we get the rest of the story:

And Nimrod dwelt in Shinar, and he reigned securely, and he fought with his

enemies and he subdued them, and he prospered in all his battles.

And all nations and tongues heard of his fame, and they gathered themselves to

him, and they bowed down to the earth, and they brought him offerings, and he became

their lord and king, and they all dwelt with him in the city at Shinar, and Nimrod reigned in the earth over all the sons of Noah, and they were all under his power and counsel.

And all the earth was of one tongue and words of union, but Nimrod did not go in

the ways of the Lord, and he was more wicked than all the men that were before him,

from the days of the flood until those days. (Jasher 7:44–46)

We can see how Nimrod could be identified with Cern as the god of this world. In fact,

Satan himself could be identified with Cern according to 2 Corinthians 4:4.[91] Nimrod may also be identified with the first person who put on Lupus' pelts and became the priest of Lupercus.

There are many ways to make connections and assign biblical identities to various myths

surrounding Cern.

Statue of Destruction

Since its unveiling in 2004, CERN's statue of the dancing Shiva has caused quite a bit of

controversy among Christians, especially in recent years.

Statue of Shiva engaging in the Nataraja dance at CERN in Geneva, Switzerland

Many look at the mythology of Shiva and the Nataraja dance and question the true motives of CERN. Is this statue meant merely as a piece of art or, as some claim, a foretelling of future destruction?

The mythology behind this statue is certainly dramatic. Shiva is one of the main deities of Hinduism. He is part of the *Trimurti*, the Hindu trinity. Shiva is known as "The Destroyer" or

"The Transformer" within the trinity.[92] One depiction of Shiva is known as *Nataraja*, meaning

"Lord of the Dance."[93] This is the depiction that embodies the statue at CERN.

The Nataraja depiction shows Shiva as the cosmic dancer who performs a divine dance to

destroy a weary universe. Shiva does this in order to make preparations for the god Brahma to start the creation process. The statue shows Shiva in the middle of a circle of flames with his left leg raised and balancing over the demonic dwarf Apasmara who represents ignorance.

Apasmara, in Hindu mythology, is a demon that cannot be killed. Hinduism teaches a

balance between ignorance and knowledge, and to kill Apasmara would be to throw off the

balance. This would mean knowledge would be attained without effort or hard work, thereby

rendering it meaningless. Since Apasmara cannot be killed, Shiva uses his right foot to crush and subdue Apasmara during the Nataraja dance. It is believed that Shiva remains in the Nataraja form to forever subdue Apasmara.[94]

The statue of Shiva at CERN contains an inscription of a quote by physicist Fritjof Capra, which states:

Hundreds of years ago, Indian artists created visual images of dancing Shivas in a

beautiful series of bronzes. In our time, physicists have used the most advanced

technology to portray the patterns of the cosmic dance. The metaphor of the cosmic dance thus unifies ancient mythology, religious art and modern physics.

Shockingly, there is more to be read on the statue that claims Shiva as the most superior

god of all religions. From the website of Fritjof Capra:

A special plaque next to the Shiva statue at CERN explains the significance of the

metaphor of Shiva’s cosmic dance with several quotations from The Tao of Physics. Here

is the text of the plaque:

“Ananda K. Coomaraswamy, seeing beyond the unsurpassed rhythm, beauty,

power and grace of the Nataraja, once wrote of it ‘It is the clearest image of the activity of God which any art or religion can boast of.’”

More recently, Fritjof Capra explained that “modern physics has shown that the rhythm

of creation and destruction is not only manifest in the turn of the seasons and in the birth and death of all living creatures, but is also the very essence of inorganic matter,” and that “for the modern physicists, then, Shiva’s dance is the dance of subatomic matter.”

It is indeed as Capra concluded:

Hundreds of years ago, Indian artists created visual images of dancing Shivas in a

beautiful series of bronzes. In our time, physicists have used the most advanced

technology to portray the patterns of the cosmic dance. The metaphor of the cosmic

dance thus unifies ancient mythology, religious art and modern physics.[95]

Given the mythology behind the statue and the type of scientific pioneering CERN

represents, it has caused many to wonder if there is a deeper meaning. Some have even gone as

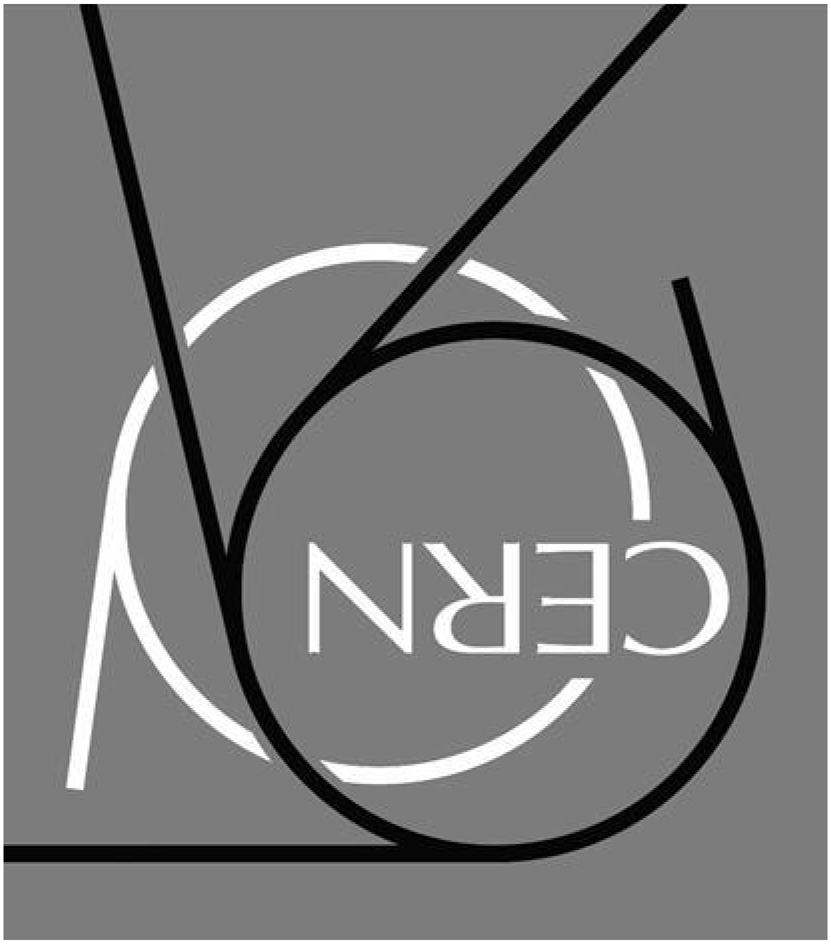
far as to claim Apasmara represents the church or the true God, Shiva represents Satan, the circle of flame represents a spiritual portal, and Shiva represents Satan traveling though the portal to destroy the church, subdue God, and take over the world. There are those who believe CERN

and the LHC will be instrumental in this process.

Logo of the Beast

Just as with the statue of Shiva, the logo of CERN has caused an equal amount of controversy.

CERN’s official logo



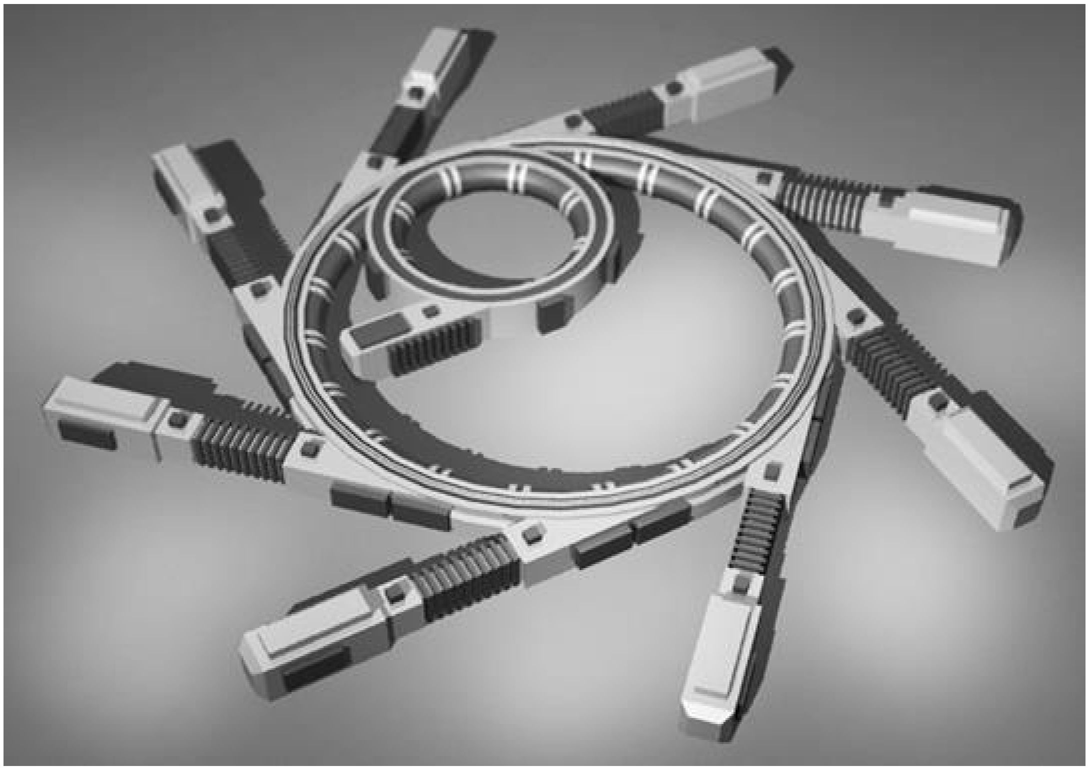
If turned upside down, the CERN logo resembles three sixes, which some claim is a clear sign of the biblical mark of the beast from the book of Revelation.

Three Sixes (signified in black) in CERN’s Logo

This also resembles a hand gesture that is thought to signify the three sixes of the mark of the beast.

Hand Gesture showing 666

Most times, this hand gesture is shown over an individual's right eye, signifying the "all-seeing eye" of the Illuminati and Freemasonry.[96] There are some who interpret the CERN acronym in the middle of the three sixes as representing the eye.



Most people outside of conspiratorial research often deduce CERN’s logo as representing

nothing else but the design of synchrotron particle accelerators.

Synchrotron soleil particle accelerator diagram

It is even said that this was to be the original design for the logo, but it looked too much like a black hole.[97] As it stands, opinions are split as to whether we have a massive coincidence or a massive conspiracy.

Interview with Gonzo Shimura

Gonzo Shimura

One person who has been following many of the more fringe ideas about CERN and the LHC is

researcher, podcaster, filmmaker, blogger, and personal friend, Gonzo Shimura. Gonz, as he is often called, has done an amazing job exploring various theories in his films *Age of Deceit 1* and

2, as well as the many videos on his YouTube channel.[98] Since he has been so diligent in researching the fringe views surrounding CERN and the LHC, I (Josh) decided he would be a

great person to ask for an interview.

JOSH PECK: With many conflicting stories between scientists and private researchers, what processes would you personally advise a person who is

seeking the truth to take?

GONZ SHIMURA: With the explosion of the Internet, we're at a time in history where

information is readily available to us at the click of a button. However, the gaps between those who provide any given information and those who receive it have become increasingly

ambiguous. While some suggest that variety is a good thing, and that the Internet has allowed for the booming of genuine journalism, resulting in large movements like the "Truther" movement, it is also ripe grounds for discovering data to support your confirmation bias.

What I have found in my research is that many who oppose what the speculative or

conspiracy-minded folks might suggest is the truth of the matter, even given ample evidence, is that credibility from established institutions are still desired. In other words, scholarly articles, mainstream media, and peer-reviewed scientific papers will always win the credibility war, even if the layman provides extensive evidence to suggest otherwise. Under such conditions, it's important for us as third-party researchers into various subjects to wade through the data presented from both sides.

One important factor is the consideration of "presuppositions." The mainstream media,

for example, will always be biased towards their political or corporate interests. Peer-reviewed scientific journals will most likely approach any given subject matter from reductionist materialism: the staple of modern scholastic science. However, the private researcher might consider declassified documents that suggest conspiracy or include metaphysical, or even supernatural, possibilities that would never be considered by the establishment. Both

perspectives are equally valuable to the third-party researcher. Even upon conflicting reports, investigating the presuppositions will usually provide

the proper context by which to understand

why one would come to the conclusions they did. All research is made from a particular worldview, and, thus, total objectivity on a matter is nearly impossible at a philosophical level.

However, there is one claim that does transcend such limitations.

As a biblical researcher, the Bible itself can be the measure of truth on any given matter.

Of course, this perspective is coming from a particular presupposition as well, such as that God exists and that He writes history before it happens (Bible prophecy). But because the claims of the source of truth is transcendent, omnipresent, omnipotent, and all other attributes associated to God, the burden of any conclusions drawn for any point of investigation is ultimately between you (the reader) and God, who provides a true objective point of reference.

My advice for anyone who looks into research and finds conflicting reports is to first define your own personal presupposition and why you hold to it, then wade through all the evidence provided from all sides of the argument, and lastly present your own conclusions. With this methodology, you can explain why you came to such conclusions while also providing for the audience opposing views and their reasons. Truth is often messy, confusing, and even contradictory in appearance. Some alleged conspiracies seem shallow while others hit deep. The biblical story of redemption through the shed blood of Jesus Christ is "all the above."

There are few things in this world that are profound enough truths that deserve an honest investigation; everything from a personal exploration into the divine, where you must first answer basic questions regarding your own beliefs about God, to understanding the infinite puzzle and intricacy that is biblical prophecy. There are no other subjects in the world that are profound enough to dig deep into the makeup of our reality or to the purpose that you have in this matrix called creation.

Josh, you've done an awesome job connecting the points between the Bible and what we are learning about in the realm of the quantum. The most important question that is sparked from this conversation is quite simple in nature: "Who is behind it all?" There is, without doubt, what appears to be "intelligence" in the fabric of our existence: in creation. It is not coincidence that the Internet and the rise of technology have also sparked new depths of research into quantum levels, affecting our philosophical dispositions.

We all seek truth because we want to be free. Many of us understand that freedom only

comes through our Savior, Jesus Christ. Yet, humanity has birthed a new savior: one that can only be in the modern age. This savior is what co-founder of Wired magazine, Kevin Kelly, calls the "Technium," who promises its own salvation to mankind. So who is telling the truth? Who will actually set us free?

John 8:31–32: "If ye continue in my word, then are ye my disciples indeed; And ye shall know the truth, and the truth shall make you free."

JOSH PECK: Do you believe there is a conspiracy going on at CERN?

GONZ SHIMURA: Yes. CERN has become the fad for the "red pill" world in 2015 with

the rebooting of the Large Hadron Collider (LHC) and various conspiracies that have been swirling around about it. While there isn't concrete evidence that suggests conspiracy outright, alternative researchers who have a grasp on the hard science regarding the technology

surrounding the LHC and particle physics have suggested that their intentions may be far more nefarious than we are told. Aside from the well-known pop science icons who have articulated their own concerns about the project, the very physicists themselves have stated some incredible things.

With a circumference of 27 kilometers, or 16.777 miles, the Large Hadron Collider at CERN is quite literally trying to rip into the fabric of space-time

and see into other dimensions.

In an article published on January 1, 2013 by The Guardian, titled "Higgs Boson Was Just a Start for CERN's Atom Smasher—Other Mysteries Await," Andy Parker, a professor of high energy physics at Cambridge, is quoted as saying:

What you'd expect is that as you reach the right energy, you suddenly see inside

the extra dimensions, and gravity becomes big and strong instead of feeble and weak.…

There could be a whole universe full of galaxies and stars and civilisations and

newspapers that we didn't know about.… That would be a big deal. **[99]**

Sometimes, conspiracies can appear to be fantastic and taken well beyond the original

intent. But interestingly, CERN itself does nothing to help defuse such conspiratorial speculations. In fact, it fuels it; from the statue of Shiva, the "destroyer" god ("the god of death and rebirth") standing outside the CERN facility, to the logo appearing to bear the numbers 666, to the strange dance ritual video performed at the facility called "Symmetry," to more recent events surrounding the first half of 2015 when the collider was fired back up for collisions of particle at double the voltage is once served to discover the "God particle."

For example, the airbus crash in the French Alps, less than 150 miles from the CERN

facility, carried on board a contractor for the National Geospatial-Intelligence Agency. She and her daughter were killed in the crash. At the same time, there was a spike in earthquakes around the world (Nepal), to volcanic activity on the rise around the world (Chile, Japan, Indonesia), to bizarre stories about something being "stuck" in the collider, to its

connection with the Internet and the quantum computers that CERN is associated with; it goes on and on. And while some

stories are stretched further than others, it is without a doubt that anyone who investigates CERN will make you scratch your head.

So do I believe in a conspiracy at CERN? Yes, but it is not simply an act of collusion amongst the elite perpetrators. Rather, the conspiracy is a spiritual one. It takes great finances, cooperation, and the support of thousands of people to run and operate something like CERN.

Not many folks would ever work for a company that advertises itself as the tool of Satan, hoping to bring about the book of Revelation. But is that, in fact, what it is? I don't know for sure. There is certainly room for it to play a role.

Most interestingly, it does tap into the topic of parallel worlds, or "the other side," which sounds eerily close to what many have understood for centuries as the "spiritual world." Is it possible that the secular world, void of seeking any spiritual, supernatural, or paranormal answers, have become blind to it altogether? And is it possible that it will be the secular world that ultimately pierces the veil between our world and the next?

JOSH PECK: What is your take on some of the imagery around CERN that has raised

eyebrows on the Internet, such as CERN's logo and the Shiva statue?

GONZ SHIMURA: Ominous. The rabbit hole of occultism that the Shiva statue brings is

far-reaching and fantastic. According to some reports, Vedic astrology follows the planet Saturn in association with Shiva. It is from this connection that researchers such as Anthony Patch have speculated the occult plans surrounding CERN.

It is easy to get lost in very esoteric territory about ancient planetary alignments, the electric universe, wormholes from Saturn to Earth, and

entities that might come through such openings. While these aspects may or may not play out as envisioned by these researchers, it is

possible that the mind of someone very high up on the ladder of the satanic hierarchy believes in such a purpose for CERN. This particular individual may be responsible for orchestrating the necessary steps in order to bring about such fantastic outcomes at CERN.

If such a person turned out to be the biblical Antichrist man of sin, I don't think any of us in this space would be surprised. The Bible tells us, after all, that the man of sin would perform great signs and lying wonders in accord with Satan (2 Thessalonians 2:9). Could these signs and lying wonders be the opening of a wormhole between Earth and Saturn, where demonic forces enter into our planet, awake in animation through biological body suits crafted from hybrid genetic abominations? It all sounds ridiculously fantastic, but then so does the idea of God becoming a man and dying for our sins so that we may have eternal life.

JOSH PECK: Do you believe any activities at CERN might play a role in Bible

prophecy?

GONZ SHIMURA: This question strikes at the heart of the matter. It's compelling to

consider CERN playing a role in Bible prophecy. I would argue that the "Tower of Babel" found in the eleventh chapter of Genesis, led by Nimrod, the one who "became" a "mighty man,"

might give us clues into what we are doing today in this 27-kilometer ring running deep underground in Geneva.

In a blog post I wrote titled "The Tower of Babel and Particle Accelerators," I

investigated the book of Jasher, an ancient Jewish text that describes bizarre activity surrounding the Tower of Babel. The book of Jasher also

records an interaction, as well as violence, between Nimrod and "the ones in heaven." In the blog post, I discuss the alleged size

of the tower, which is described as being some three times larger in circumference than the Large Hadron Collider in Geneva.

Furthermore, passages from the book of Enoch appear to discuss a time when the

Watchers interacted with human beings. It is possible that after Noah's Flood, the Watchers decided to work through one person, Nimrod, to carry out their genetic agenda rather than working through an entire population of divine beings, who caused God to send the Flood, and who are now imprisoned (2 Peter 2:4, Jude 1:6). Here is an excerpt from the blog post, "The Tower of Babel and Particle Accelerators":

And the LORD said, "Behold, they are one people, and they have all one language,

and this is only the beginning of what they will do. And nothing that they propose to do will now be impossible for them." (Genesis 11:6 [emphasis added])

Again, such passages beg the question: What kind of technology would cause God to

suggest that the children of men would be able to do whatever they propose to do? We turn once again to the book of Jasher, verse 25, for some clues:

And the building of the tower was unto them a transgression and a sin, and they

began to build it, and whilst they were building against the Lord God of heaven, they

imagined in their hearts to war against him and to ascend into heaven. [100]

This passage sounds very familiar to one we read about in Isaiah, where Satan proclaims his five "I will" statements; the most applicable of the five being:

You said in your heart, "I will ascend to heaven; above the stars of God I will set

my throne on high; I will sit on the mount of assembly in the far reaches of the north."

(Isaiah 14:13)

Again, many have dismissed such verbiage as nothing more than allegorical boasting, negating the obvious possibility that these passages could be clues informing us that Satan in the ancient past, or the children of men in the time of Babel, actually tried to ascend into the heavens. Again, such a theme brings us right back to today. We are living in the days of Babel.

And its beast is slowly beginning to rise out of the sea of chaos.

…The book of Jasher also records the destruction of the tower itself, soon after the

dispersion of the people:

And as to the tower which the sons of men built, the earth opened its mouth and

swallowed up one third part thereof, and a fire also descended from heaven and burned

another third, and the other third is left to this day, and it is of that part which was aloft, and its circumference is three days' walk. (Jasher 9:38)

Here, we see God bury a third of the tower, burning a third of the tower by [raining] fire down from heaven (potentially a heavenly/space technology that will be used by the False Prophet ala Revelation 13, as false signs and wonders), with a third of it left "to this day." It even describes the size of

the remaining third, which is said to be a circumference of a three-day walk. According to Talmudic traditions, a day's journey of the average man was called derekh yom, which equals to approximately 10 parasangs. A single parasa is considered to be about 2.4–2.88 miles. This means in a derekh yom, one could walk somewhere between 24 to 28.8

miles. In three derekh yoms, this would add up to somewhere between 72 and 86.4 miles. If that were a third of the actual size of the Tower of Babel, then we are looking at a circumference of somewhere between 216 and 259.2 miles!

Now this would indicate something far different from the traditional views of the Tower of Babel being nothing more than a tall, z-iggurat-shaped building. Rather, it would seem that whatever was being built required unfathomable distances. And as our investigation moves from these ancient glimpses of the distant past to modern-day developments, we can begin to see the kinds of technologies that may have been harnessed by men, which ultimately caused God to prevent its continued development. **[101]**

So, to get back to the idea of CERN having to do with biblical prophecy, we can logically deduce a couple of things. First, Jesus declared in His Olivet Discourse, "But as the days of Noe were, so shall also the coming of the Son of man be" (Matthew 24:37). It is assumed that with the 350 years that Noah lived after the Flood, he was certainly alive during the building of the Tower. Secondly, the entities influencing Nimrod to build the Tower of Babel in the first place, the spiritual divine beings whom we read about in Genesis 6, seem to be knocking on the veil between this world and the next today, just as they were in the past. Furthermore, there are speculations about CERN being responsible for the bottomless pit mentioned in the book of Revelation. A friend and researcher Anthony Patch summarized what he believed to be the role of CERN in Bible prophecy on the ninety-second episode of Canary Cry Radio:

Well I will start at the end. They want to connect to the planets; they want to

reconnect the planet electrically. Specifically Saturn. And they want to terraform this planet in the sense of creating an entirely new environment for a new race of species or beings; I won't even call them humans.…

Essentially, they're trying to recreate what they called the "Golden Age" and this predates Sumerian and Babylonian and all of our

ancient history including the Egyptians and the pyramids. [102]

Anthony Patch was visited by MIB (Men in Black) and was told to quiet down about the

topic of CERN.

Screencap of Anthony Patch's Facebook page

What most don't know is that he allegedly has some very high-level credentials in the world of physics that he has never boasted about, and thus, a deep understanding about the actual science being explored at CERN and the LHC. Furthermore, it was his Christian

convictions that led him to expose the actual occult agenda surrounding CERN, concepts that seem fantastic to anyone new to the subject matter, but very much in line with what the occult traditions have been teaching and preaching for all of recorded human history.

JOSH PECK: Do you believe the LHC at CERN poses any dangers, such as opening

interdimensional portals?

GONZ SHIMURA: With the rumors about CERN opening wormholes and stargates into

other dimensions, all of the biblical references to similar "openings" between this world and the next come to mind. Jacob's ladder, Enoch and Elijah's whirlwind, and the bottomless pit are all examples. Is it possible that CERN is attempting to open such gateways, or what appears to be a whirlwind, that connects this world to the next? In my humble opinion, absolutely! Between all of the occult information that has been exposed, in concert with the very quotes given to us by the physicists themselves, it's hard to suggest otherwise. Here is another excerpt from my blog: We may never know exactly what was going on back in the time of Genesis 11.

But we can be certain that the Lord God is in control, and that He will use such devices of the enemy to bring about His ultimate will. No doubt, the words of Jesus and his

prophecies about the end times begin to sound very interesting.

"And except those days should be shortened, there should no flesh be saved: but

for the elect's sake those days shall be shortened." (Matthew 24:22)

Could the development of such devices as the Large Hadron Collider be a strong indication that we live once again in the days of Noah (which lasted beyond the Flood) and the days of Lot? Could we be on the brink of rediscovering an occult science that will usher in the beast system once and for all, and trigger the events of the Second Coming of Jesus Christ?

Folks within the scientific community who feel that the endeavors of CERN and the LHC

may very well cause the destruction of the earth have issued other warnings. In 2010, Professor Otto E. Roessler, a German biochemist known for his work on the "Chaos Theory" and the theoretical equation known as the "Rossler attractor" stated in a video interview:

I'm worried, frankly speaking. Because the safety of the experiment has leaks.…

It's nothing to feel comfortable about. Dangers are never something that you feel good when you dissipate them. So the warning is always something you do because you feel

pain and you want to be relieved, not just of your own pain, but to prevent pain from

affecting other people. So it's a medical kind of activity of mine. I started out as a medical doctor. And so I feel sometimes doctors have to speak out if there is a safety leak somewhere.… It might be a little bit painful to say, "please stop something," but in the end, it is worth doing for everyone. [103]

The warnings that Professor Roessler issued some five years ago have spread into the

community of conspiracy theorist to a point where I believe the professor himself had not considered. While he issues this warning on a practical and scientific application, others who have a grasp on the hard science going on at CERN seem to indicate that the goals for CERN

are very much nefarious in nature: the work of the fallen one.

JOSH PECK: Is there anything else with CERN or the LHC that people should pay special attention to?

GONZ SHIMURA: There are a lot of things to look for in speculation surrounding

CERN. In the first half of 2015, we saw many strange anomalies from an Airbus crash to major earthquakes in Nepal that killed thousands and volcanoes erupting around the world in record-breaking fashion. The conspiracy world was quick to connect it all back to CERN, especially because of the vicinity of such tragedies in certain occasions.

As a result, there has been an influx of YouTubers keeping track of everything to come out of CERN, even if they seemed like a stretch. In one occasion, a YouTuber produced an image that was allegedly from within the LHC. According to this YouTuber, the image from the LHC

showed faces of demons. I reported on the image, which I felt was not conclusive evidence to suggest demons. While I considered the possibility, I reckoned it was more likely that it was pareidolia, a phenomenon when people anthropomorphize objects or patterns.

Another thing to look out for is propaganda surrounding portals in entertainment media.

One of the first films I watched as a youngster that got me interested in UFOs, aliens, and hidden ancient history was a film called Stargate. I won't get into the details here, but the film was about a gate that transported people from earth to a distant star where an evil and

extraterrestrial entity named Ra planted civilizations and created humans to be slaves. Such a film was very interesting as it showed the potential views of occult practitioners.

However, since the uptake on CERN, the 2015 film and entertainment industry has been

wrought with what I call "Portal Propaganda." I document as much as I can on the subject matter on my YouTube channel Facelikethesun, where I have looked at everything from music

videos, Disney cartoons, and major motion pictures that all using portals in their plot line. In fact, the most interesting out of all the portal propaganda is the fact that on the Disney XD

channel, every single new show contains within it a portal which takes the characters into a different dimension or world. In fact, the opening song for the show "Star vs. the Forces of Evil," written and performed by Brad Breeck, not only shows the portal propaganda, but lyrically reflects it as well:

It's gonna get a little weird

Gonna get a little wild

I ain't from round here,

I'm from another dimension.

It's gonna get a little weird,

Gonna have a good time!

I ain't from round here,

I'm from another woo-hoo!

Yea-ah!

I'm talking rainbows,

I'm talking puppies.

Puh-puh-puh-puh-puh-puh-puh-puuuhh!

It's gonna get a little weird,

Gonna get a little wild.

I ain't from round here,

I'm from another dimension! [104]

JOSH PECK: If people want to know more about you and your work, where can they go?

GONZ SHIMURA: The best place to look for my work on CERN is on the CERN WATCH

playlist on YouTube:

https://www.youtube.com/watch?v=ZhEF04OilXc&list=PL_G5NZ-sJ7t-3AlKPSh_By-

gWq-PgEHKO. *Otherwise, you can watch all my daily videos on YouTube at*

http://YouTube.com/user/facelikethesun *and listen to all of our interviews on Canary Cry Radio at* http://canarycryradio.com.

(Authors' note: A very big thanks goes out to Gonzo Shimura for taking the time to

participate in this interview.)

Chapter 4

CERN's History

A CERN of Many Names

Before CERN was a laboratory, it was a council whose purpose was to build the laboratory. In 1952, the European Council for Nuclear Research was established by twelve European

governments. The acronym “CERN” originally came from the French *Conseil Européen pour la Recherche Nucléaire.* In 1954, after the council was dissolved, the name changed to *Organisation Européenne pour la Recherche Nucléaire,* which translates to “European Organization for Nuclear Research. ”[105] Former director of CERN, Lew Kowarski, stated that the acronym could have changed to OERN, but it was actually Werner Heisenberg (the famous

physicist responsible for developing Heisenberg’s Uncertainty Principle) who suggested the acronym should remain as CERN.[106]

Scientific Achievements at CERN

Probably the most well-known scientific achievement of CERN is the discovery of the Higgs

boson in 2012. However, before we get into that story, sufficient groundwork must be laid.

CERN is responsible for other scientific achievements as well.

In 1973, weak neutral currents were discovered, which led to the discovery of the W and

Z bosons (the elementary particles responsible for mediating the weak interaction) in 1983.[107]

The discovery of the W and Z bosons was a major breakthrough for what is now known as the

Standard Model of particle physics.[108] The W and Z bosons are still among the most exciting discoveries to date.[109]

In 1995, the first creation of antihydrogen (antimatter counterpart to hydrogen) atoms occurred in what is known as the PS210 experiment.[110] A normal hydrogen atom is made of an electron and proton (subatomic particles), however an antihydrogen atom is made of a positron and antiproton (antimatter counterparts to the electron and proton).[111] In

2010, 38 atoms of antihydrogen were isolated.[112] Antihydrogen was then able to be maintained without decaying for fifteen minutes in 2011.[113] It is the hope of scientists that, by studying antimatter, they might discover the answer to what is known as the *baryon asymmetry problem*, which basically asks the question of why there is more matter than antimatter in the universe.[114]

CERN's World Wide Web

One of the more interesting and little-known facts about CERN is that the Internet was actually created there. The World Wide Web began as a project at CERN called ENQUIRE by Tim

Berners-Lee in 1989 and Robert Cailliau in 1990.[115] The project was originally intended as a way for researchers to share information. The very first website was activated in 1991.[116] On April 30, 1993, CERN announced the World Wide Web would be available for everyone.

The invention of the Internet at CERN is of great importance to those who connect

CERN with the mark of the beast of Revelation:

And he causeth all, both small and great, rich and poor, free and bond, to receive a

mark in their right hand, or in their foreheads:

And that no man might buy or sell, save he that had the mark, or the name of the

beast, or the number of his name.

Number	Hebrew Letter	Sound
1	א	glottal stop
2	ב	b (v after vowel)
3	ג	g
4	ד	d
5	ה	h (can be vowel at end)
6	ו	w (also u or o vowel)
7	ז	z
8	ח	voiceless pharyngeal
9	ט	'emphatic' t

Here is wisdom. Let him that hath understanding count the number of the beast:

for it is the number of a man; and his number is Six hundred threescore and six.

(Revelation 13:16–18)

One point that is brought up is how much of the world's buying and selling takes place

on the Internet, but a more specific clue is given in the actual number 666.

The letters of the Greek and Hebrew alphabets also represent numbers. If you were to

take three sixes and translate them through the Hebrew alphabet, you would be left with three of the letter *vav*. The Hebrew letter *vav* can translate to the English letter "w."

First nine letters of the Hebrew alphabet with corresponding numbers

As we can see in this illustration, three sixes in Hebrew would equate to three w’s in English. This would appear as “www,” which, in our modern era, is recognized as standing for

“World Wide Web.”

This has been a semi-popular theory in Christian eschatology for a few years now.

However, as some have pointed out, it has its problems as well. These arguments are presented here only in fairness to the reader and not to advocate one side over another.

First, and probably most obvious, is the text in question was written in Greek and not

Hebrew. That alone doesn’t discount the theory, since most of the Bible is written in Hebrew and those who wrote it spoke Hebrew, but it can hardly be used to support it, either. Another

contention is the fact that the text states “Let him that hath understanding count the number of the beast: for it is the number of a man.” Obviously, the Internet is not a man; it is something that was invented by man. Also, the text mentions, “six hundred threescore and six.” This is exactly 666. If we were to add the three *vavs* of Hebrew, we would be left with the number 18.

Therefore, it is believed the actual number of the beast will add up to 666 and will not be merely three individual sixes. After all, the text does not say the number of the beast will be “six and six and six.”

There are, of course, more arguments against the 666/Internet connection. What is

presented here are only a few. As stated earlier, it is important to view issues from all angles to make an informed decision as to what we will

personally believe. It is also incredibly important to stay true to the text in question, at least as much as possible given the limited information available and our limited understanding.

Magnetic Quench of 2008

September of 2008 was an exciting, yet tragic, time to those involved with the LHC at CERN.

September 10 was the date that the LHC was first fully operational. On September 19, however, a terrible incident occurred. This type of incident is known as a "magnetic quench". Roughly one hundred magnets were bent and, due to an electrical fault, 16 tons of liquid helium were lost.[117]

Don Lincoln, physicist and senior scientist at Fermilab National Accelerator Laboratory,

recounts the incident:

Things were apparently progressing beautifully, with the electrical current slowly

rising. And then the current reached 8,700 amperes. This is when things started to go bad.

Quickly. The alarm board went red. The fire alarms in the LHC tunnel 300 feet (100

meters) belowground went off. The power to the entire sector was automatically cut off.

Aboveground, in the control room, pandemonium, shock, and initial confusion ensued. It

looked a lot like the scene in the movie *Apollo 13* just after the explosion in the oxygen tank. Only a few things could have made the control system go haywire like that, and

none of them meant anything good.[118]

It wasn’t until March 2009 that the final report was released to explain what had

happened. All of the magnets had to be connected electronically to one large circuit. This was done by soldering the superconducting cables from one magnet to the next. As a safety measure, the cables were buried in large copper bus bars. Therefore, if the cables ever became too warm to be superconducting, the copper would take over. However, the safety circuitry didn’t extend to the soldered splices. As the electrical current increased, overheating occurred due to resistance between two magnets. It only took a fraction of a second for the solder and the copper bus bar to melt. Since the electrical current had nowhere else to go, an electrical arc developed with nearly 10,000 amperes of force: the equivalent usage of one hundred households.

Since the LHC magnets are superconducting, they are cooled by liquid helium. The liquid helium is stored inside the magnets in a huge bottle. The electrical arc burned a hole through the bottle and the liquid helium turned to gas. When that happened, it expanded to about seven hundred times its original volume. In just a couple of minutes, two tons of liquid helium were released and pushed all of the air down the tunnel. For about a mile in both directions, the air was completely displaced. The helium was racing at a speed of four hundred meters per minute, meaning it would have been impossible to outrun. Luckily no one was in the tunnel during the incident; otherwise, they would have surely been killed.

The helium vented with so much force that the magnets, weighing thirty-five tons, were

ripped off of their mounts and fractured the concrete floor in which they were anchored. The damage to the collider was substantial. The LHC was not operational again until November of

2009.[119]

Short Circuit of 2015

More recently, in 2015, the LHC ran into another problem. After being shut down for two years, the LHC was ready to resume operations. However, in March of 2015, scientists had to postpone the relaunch. They had discovered a short circuit in one of the magnets. Because of the leakage in 2008, scientists were in no hurry to resume full operations. CERN’s director general, Rolf Heuer, stated:

All the signs are good for a great run 2. In the grand scheme of things, a few

weeks delay in humankind's quest to understand our universe is little more than the blink

of an eye.[120]

The LHC was started up again in early April of 2015.

The Weasel of 2016

Strangely enough, a small rodent was able to bring the LHC at CERN down in early 2016. After a power outage, investigating engineers found the charred remains of what appeared to be a weasel, though later it was discovered to have been a marten. Apparently, the small, furry creature had chewed through a power cable.

Arnaud Marsollier, head of press for CERN, stated, “We had electrical problems, and we

are pretty sure this was caused by a small animal. ”[121] At the time of the shutdown, the LHC was attempting to prepare to collect new data on the elusive Higgs boson particle. It was also reported that CERN has seen some hints of possible new and undiscovered particles.[122]

This wasn’t the first time an animal has interrupted operations with the LHC at CERN. In

2009, it was believed a bird had dropped a baguette on critical electrical systems.[123] Marsollier is quoted as saying, “We are in the countryside, and of course we have wild animals

everywhere.” These types of problems happen with other particle accelerators as well. In 2006, raccoons were the cause of issues at Fermilab in Illinois.

The Toes of Prophecy

There is an idea that CERN may fit into biblical prophecy through some of its member states. In 1953, the CERN convention was signed by twelve original founding member states: Belgium,

Denmark, France, the Federal Republic of Germany, Greece, Italy, the Netherlands, Norway,

Sweden, Switzerland, the United Kingdom, and Yugoslavia.[124] Since that time, many more member states have been added. All current member states are European, except for Israel,

which was added in 2014.[125]

One interpretation of Bible prophecy states that the Roman Empire will be revived through the European Union. This view comes from an interpretation of a passage in the book of Daniel:

After this I saw in the night visions, and behold a fourth beast, dreadful and

terrible, and strong exceedingly; and it had great iron teeth: it devoured and brake in

pieces, and stamped the residue with the feet of it: and it was diverse from all the beasts that were before it; and it had ten horns. I considered the horns, and, behold, there came up among them another little horn, before whom there were three of the first horns

plucked up by the roots: and, behold, in this horn were eyes like the eyes of man, and a

mouth speaking great things. (Daniel 7:7–8)

This is explained in further detail later in the book of Daniel:

Thus he said, The fourth beast shall be the fourth kingdom upon earth, which shall

be diverse from all kingdoms, and shall devour the whole earth, and shall tread it down,

and break it in pieces. And the ten horns out of this kingdom are ten kings that shall arise: and another shall rise after them; and he shall be diverse from the first, and he shall

subdue three kings. (Daniel 7:23–24)

The book of Revelation comments on this point as well:

And the ten horns which thou sawest are ten kings, which have received no

kingdom as yet; but receive power as kings one hour with the beast. These have one

mind, and shall give their power and strength unto the beast. (Revelation 17:12–13)

The idea here is that the fourth beast of Daniel represents the revived Roman Empire and

the ten kings represent the kings of its member nations. The little horn, generally viewed as the

Antichrist, rises up and takes control of three of those nations by conquering their kings. Thus, the Antichrist will control the entire Empire, and through it, the world.

Part of this interpretation also comes from another section in the book of Daniel:

Thou, O king, sawest, and behold a great image. This great image, whose

brightness was excellent, stood before thee; and the form thereof was terrible.

This image's head was of fine gold, his breast and his arms of silver, his belly and

his thighs of brass,

His legs of iron, his feet part of iron and part of clay.

Thou sawest till that a stone was cut out without hands, which smote the image

upon his feet that were of iron and clay, and brake them to pieces.

Then was the iron, the clay, the brass, the silver, and the gold, broken to pieces

together, and became like the chaff of the summer threshingfloors; and the wind carried

them away, that no place was found for them: and the stone that smote the image became

a great mountain, and filled the whole earth.

This is the dream; and we will tell the interpretation thereof before the king.

Thou, O king, art a king of kings: for the God of heaven hath given thee a

kingdom, power, and strength, and glory.

And wheresoever the children of men dwell, the beasts of the field and the fowls

of the heaven hath he given into thine hand, and hath made thee ruler over them all. Thou

art this head of gold.

And after thee shall arise another kingdom inferior to thee, and another third kingdom of brass, which shall bear rule over all the earth.

And the fourth kingdom shall be strong as iron: forasmuch as iron breaketh in

pieces and subdueth all things: and as iron that breaketh all these, shall it break in pieces and bruise.

And whereas thou sawest the feet and toes, part of potters' clay, and part of iron,

the kingdom shall be divided; but there shall be in it of the strength of the iron, forasmuch as thou sawest the iron mixed with miry clay.

And as the toes of the feet were part of iron, and part of clay, so the kingdom shall

be partly strong, and partly broken.

And whereas thou sawest iron mixed with miry clay, they shall mingle themselves

with the seed of men: but they shall not cleave one to another, even as iron is not mixed

with clay.

And in the days of these kings shall the God of heaven set up a kingdom, which

shall never be destroyed: and the kingdom shall not be left to other people, but it shall

break in pieces and consume all these kingdoms, and it shall stand for ever.

Forasmuch as thou sawest that the stone was cut out of the mountain without

hands, and that it brake in pieces the iron, the brass, the clay, the silver, and the gold; the great God hath made known to the king what shall come to pass hereafter: and the dream

is certain, and the interpretation thereof sure. (Daniel 2:31–45)

There is obviously a lot that can be examined from this passage, but for our purposes here, we only need to view the highlights.

The interpretation we are looking at here generally views the prophesied kingdoms as

such:

Head of gold—Babylon (605–539 BC)

Arms of silver—Medo-Persia (539–330 BC)

Thighs of brass—Greece (330–63 BC)

Legs of iron—Rome (63 BC–AD 1453)

Feet of clay and iron—Revived Roman Empire

In this interpretation, the ten toes represent the ten nations spoken of earlier. Of course, there are certain problems with this interpretation. Most notably, there are far more than ten nations in the European Union today. As of today, it is comprised of twenty-eight states.[126] Of course, there is always the possibility that some of these nations will be removed or come together in a way that will equate to ten once again, though this might be a bit of a reach.

The connection to CERN comes from its member states. The member states of CERN

and the European Union are much of the same. However, due to this, the same problem arises.

There are more than ten member states of CERN. Even if we only count founding member states, we still have twelve. Of course, just as with any problems of any interpretation of prophecy, there are ways around this as well. In considering these possibilities, the best bet is to treat them for what they are: possibilities. It never hurts to research them out to the fullest we

currently can, then file them away for later. Things may change in the future to make this a more viable

possibility, or they may not. Either way, only time will tell if we can fully accept or discount these interpretations.

Chapter 5

LHC Mechanics

Dimensions and Construction

With a budget of approximately nine billion dollars, the Large Hadron Collider is the largest and most expensive machine ever built by man in known history. The LHC was built in collaboration with more than ten thousand scientists and engineers from more than one hundred countries, as well as hundreds of universities and laboratories.[127] Buried at an average depth of about three hundred feet beneath the border of France and Switzerland, the LHC is seventeen miles in

circumference and is comprised of 1,232 primary magnets.[128] Because it is underground, the LHC cannot be seen from the surface.

Each magnet used in the LHC is about fifty feet long and weighs about thirty-five tons.

The magnets take 4,300 miles of wire to make.[129] That amount of wire would stretch from Las Vegas to New York City and back. The magnets are cooled by a total of 10,800 tons of liquid nitrogen followed by 120 tons of liquid helium. Helium is the coldest liquid ever discovered.

Helium turns from a gas into a liquid at -452°F, which is very close to absolute zero (the minimum temperature thought to be possible, theoretically set as −459.67°F). Getting the

magnets cooled down to the desired temperature takes about six weeks. In those six weeks,

37,000 tons of magnets are cooled from room temperature to -456°F.

In order to work properly, the pipes that particles are fired through must be as complete

of a vacuum as possible. If the pipes were not a vacuum, the particles could interact with air molecules and disappear. The vacuum is ten trillion times rarer than regular air and has a pressure ten times lower than that on the surface of the moon. The total volume of the vacuum is 220,000 cubic feet, making the LHC among the largest and best vacuums ever created.

The “Big Bang” Machine

The LHC is nicknamed “The Big Bang Machine” because of what it actually does when

operational. It is believed to recreate the conditions of the Big Bang event that, according to scientists, brought our universe into existence some 13.8 billion years ago. The LHC accelerates protons (particles that make up part of the nucleus, or center, of atoms) to 99.999999 percent of the speed of light, or 670 million miles per hour. The protons are focused into a beam less wide than that of a human hair. The beam travels in a circular path for about a day, which means the protons travel a total of about 16 billion miles. Colliding proton beams requires an almost

unimaginable amount of precision. It is equivalent to firing two sewing needles at each other from six miles apart and having them collide at the exact halfway point. In order for the LHC to work properly, two beams of protons are required and must collide exactly at specific times and places within the accelerator.

The reason large electromagnets are used in this process is quite fascinating. The electric field that is generated is what is used to move the protons. We can think of this in terms of gravity to help understand how this works. For gravity, the important feature of an object for movement is its mass. When a rock is dropped from a building, the mass of the rock interacts with the earth’s gravitational field, causing it to fall. For the electric field, the important feature is electric charge (the type of energy it has). The electric charge of a proton interacts with the electric field, causing it to move. The direction of electric fields can be manipulated, such as through the use of electromagnets, making it optimal to guide and accelerate protons in the LHC.

The electric field is used to accelerate the proton while the magnetic field is used to guide the proton in a circular direction. If the LHC were a car, we could think of the electric field as the gas pedal and the magnetic field as the steering wheel.

Instead of using a more familiar unit of energy, such as kilowatt hours or joules, particle accelerators such as the LHC are labeled by “electron-volts,” presented as “eV”. One electron volt is the energy an electron (subatomic particle of an atom that orbits the nucleus) has when it is accelerated by a 1--volt battery. Prior to the writing of this book, the LHC ran at 7 trillion electron-volts. This is usually written as 7 TeV. This means that if the LHC was powered by 1-volt batteries, it would require 7 x 1012, or 7,000,000,000,000 batteries. That would be the equivalent of 777,777,777,778 9-volt batteries. Even more impressive, physicists increased the

power of the LHC to 13 TeV in 2015 with plans to increase it again to 14 TeV (the LHC’s maximum capacity) in 2017 or 2018.

The beam of protons itself is a bit different than most would probably imagine. The word

“beam” makes it sound like it is a continuous flow of protons being ejected. However, these protons come out more like packets with gaps in between. Most might think it works more like a flame-thrower, which ejects a constant stream of carnage, yet it is more like bullets fired rapidly from a gun.

Each packet of protons is about a foot long and about a thousandth of an inch in diameter.

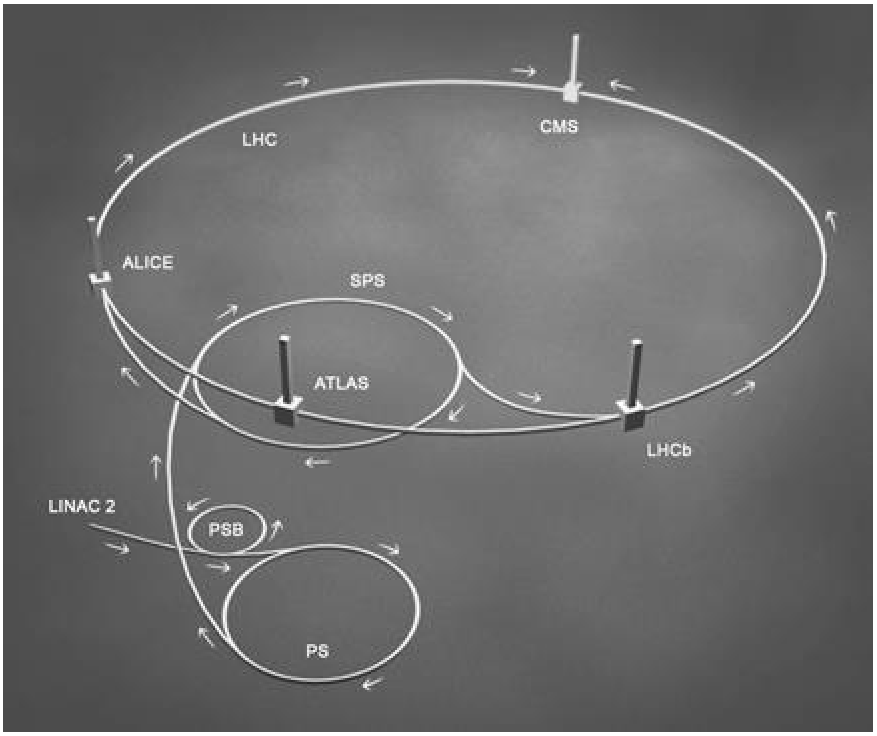
The LHC is designed to have 2,808 packets of protons. The packets are separated from one

another by no less than 25 feet. Each packet is comprised of 100 billion protons. These packets are made to pass through one another at designated areas in the accelerator with the hope that two protons traveling opposite directions will collide.

The LHC is actually a series of particle accelerators. To get the protons up to speed, it

works much in the same way as gears of a car. To go from zero to 80 miles per hour, a car must go through a series of gears, each one designed to handle a certain amount of velocity. Much in the same way, protons run through a series of particle accelerators, each one built to handle a certain velocity. The largest ring that is 17 miles in circumference is the last leg of the protons’

journey, built to accelerate them to nearly the speed of light.



LHC complex

This illustration shows how the entire LHC complex is constructed and the path protons

will take during acceleration. Before entering the first accelerator, protons are obtained by taking hydrogen (each hydrogen atom is made of a single proton and an electron) and stripping off the electrons. This is done with what is known as a “Duoplasmatron source,” which gives the

protons 100,000 eV of energy. This brings the protons to about 1.5 percent the speed of light, which equates to about 2,700 miles per second.

The protons then enter the Linac 2 accelerator.[130] The Linac 2 is a 256-foot-long, straight-line accelerator. Protons enter the Linac 2 with a relatively small amount of energy and leave with 50 million electron-volts (5x107 eV). This brings the velocity of the protons up to 31

percent of the speed of light.

The protons then leave the Linac 2 and enter the first circular accelerator. This is called the Proton Synchrotron Booster, or PSB. The PSB is a ring with a circumference of 500 feet.

This accelerator increases the energy from 50 million electron-volts to 1.4 billion electron volts (1.4x109 eV). The velocity of the protons increases to 91.6 percent of the speed of light.

As the protons leave the PSB, they enter the Proton Synchrotron (PS), another circular

accelerator. The PS has a circumference of 2,010 feet. The energy of the protons is increased to 25 billion electron-volts (2.5x1010 eV). This increases the protons’ velocity to 99.93 percent of the speed of light.

Next, the protons enter the Super Proton Synchrotron (SPS). The SPS was the site of the

discovery of the W and Z bosons in 1983. The SPS has a circumference of 20,160 feet and raises the energy of the protons to 450 billion electron-volts (4.5x1011 eV). This brings the protons’

velocity up to 99.9998 percent of the speed of light.

Finally, the protons are ready to enter the Large Hadron Collider. The LHC increases the

energy of the protons to the full 13 trillion electron-volts (13x1012eV), or 13 TeV. This brings the velocity of the protons to an astonishing 99.999999

percent of the speed of light, which is only 8.5 feet per second slower than light itself. The LHC consists of two beams that fire protons in different directions. As shown in Figure 13, the SPS has two different points where protons can be transferred to the LHC. It takes about four minutes to transfer the desired number of protons to the LHC from the SPS and about twenty minutes for the LHC to accelerate them to maximum velocity. The protons are then left to collide in the detectors for about ten or as much as twenty

hours.[131] During this time, the protons travel a total of about ten billion miles. This is roughly equivalent to traveling to Neptune and back.

The Seven Experiments

There are seven experiments at the LHC that use detectors to analyze particles that are produced during collisions. Each experiment is distinct and is characterized by its detectors.[132] The two biggest and most well-known of these experiments are CMS and ATLAS.

CMS stands for “Compact Muon Solenoid.” Simply speaking, it gets its name from

exactly what it is. CMS is relatively small, is built to study muons, and has a solenoidal magnetic field at its heart. Even while maintaining that its size is “relatively small,” this can still sound a bit misleading. The CMS is about three stories tall. However, this is small compared to other detectors. The CMS detector is sixty-five feet long, forty-eight feet in diameter, and weighs fourteen thousand tons.

ATLAS stands for “A Toroidal LHC ApparatuS.” The ATLAS detector is designed to

study the same kind of collisions as CMS, only it is designed differently for a very important reason. Since no one knew what kind of phenomena would be observed at the LHC, it was

necessary to have two detectors using different technology. Also, a second detector can provide verification of findings and can also act as a backup in

case the other detector is damaged.

ATLAS is much larger than CMS. ATLAS is 150 feet long and 75 feet wide. The total

volume of ATLAS is about six times larger than that of CMS. However, ATLAS is also much

lighter. Despite its gargantuan size, ATLAS is only 7,800 tons, which is a little more than half of the weight of CMS. ATLAS has a solenoid style central magnet, similar to that of CMS.

However, ATLAS also has large outer toroid magnets.

The collisions of proton beams within the center of the ATLAS and CMS detectors occur

every twenty-five billionth of a second. That works out to be about forty million collisions each

second. Also, the beams are so intense that about twenty collisions can be expected every time they pass through each other. That means there are roughly eight hundred million collisions per second in each detector. However, each detector can only record about three hundred collisions per second. This means only one out of about every one hundred thousand collisions can be

recorded. Most collisions at the LHC are relatively gentle and offer nothing especially

interesting. Interesting and high-impact collisions are far rarer. In fact, it is about one hundred trillion times more likely to have a gentle impact than an interesting one. One must be extremely careful in choosing which collision to record.[133]

There are five other experiments at the LHC. One of them is the LHCb, which stands for

“Large Hadron Collider beauty.” The main purpose of this experiment is to study particles

containing bottom quarks (subatomic particles even smaller than protons). These are known as

“b-hadrons.” “Hadron” is word to describe a particle that contains quarks (such as a proton), and the “b” signifies at least one of these quarks is a bottom quark. Bottom quarks are only one of six flavors a quark can come in. The other five are: top, strange, charm, up, and down.[134]

Another experiment is called ALICE. This stands for “A Large Ion Collider Experiment.”

The purpose of ALICE is to study collisions involving lead nuclei (the center of lead atoms). The total energy involved in lead collisions is eighty-two times larger (about a quadrillion electron-volts) than proton collisions; however, lead beams are about ten million times less intense than proton beams. Because of this, lead beams will only collide about eight thousand times per second. Only four hundred of these would be head-on collisions. Despite all of this, and because lead nuclei are comprised of 208 protons and neutrons, much can be learned by studying their collisions.

The last three experiments are the smallest. They are TOTEM, LHCf, and MoEDAL.

TOTEM stands for “TOTal Elastic and diffractive cross-section Measurement.” The purpose of the TOTEM experiment is to measure the protons as they emerge from collisions at small angles.

This region is known as the “forward” direction. Only TOTEM has access to this region.[135]

LHCf stands for “Large Hadron Collider forward.” This experiment uses particles thrown off from collisions in the LHC to simulate cosmic rays (highly energetic atomic nuclei or other particles traveling through space at a speed approaching that of light). These simulated cosmic rays are then studied in laboratory conditions.[136] Lastly, MoEDAL stands for

“Monopole and Exotics Detector At the LHC.” The purpose of the MoEDAL experiment is to search for a

hypothetical particle known as the “magnetic monopole” (an isolated magnet with only one

magnetic pole: a north pole without a south pole, or vice versa). MoEDAL is also looking for highly ionizing SMPs, or “Stable Massive Particles” (particles that may explain the mysteries of dark matter). SMPs are predicted by theories that extend beyond the standard model of particle physics.[137]

CERN Isn’t Alone

There are other particle accelerators beyond those found at CERN. One of these is the RHIC, which is located in Upton, New York. RHIC stands for “Relativistic Heavy Ion Collider.”[138]

The main purpose of the RHIC is to study the form of matter as it existed just after the Big Bang by colliding ions at relativistic (accurately described only by the theory of relativity) speeds.[139]

The Tevatron, now decommissioned, is a circular particle accelerator at Fermilab (Fermi

National Accelerator Laboratory), located east of Batavia, Illinois. It is the second-highest energy particle collider in the world, bested only by the LHC. The main achievement of the

Tevatron was the discovery of the top quark in 1995. Due to budget cuts and the completion of the LHC, the Tevatron ceased operations on September 30, 2011.[140]

Interestingly, there are plans for a new particle collider in the near future. The ILC, or

“International Linear Collider.” would collide electrons with positrons (matter and antimatter) at an eventual energy of 1 TeV, but might start off at

only half the energy. It will be between nineteen and thirty-one miles long and will be the longest linear particle accelerator in existence.

Once approved, it is expected to take seven years and roughly seven billion dollars to build. The stated three main goals of the ILC are:

1. Measure the mass, spin, and interaction strength of the Higgs boson.

2. Discover if TeV-scale extra dimensions exist and, if so, measure their number, size,

and shape.

3. Investigate the lightest supersymmetric particles, which are candidates for dark

matter.[141]

It is not decided yet which country will host the ILC, but Japan is considered the most

likely candidate.[142]

Much is in store for the future of CERN, the LHC, and particle colliders in general. With

how fast these discoveries in quantum physics will likely be made in the near future, it is a good idea for us to learn as much as we can now so we will have an easier time understanding what lies ahead. For the future that is shaping ahead, remaining uninformed is no longer a viable option.

PART 2: Quantum Physics

We are the product of quantum fluctuations in the very early universe.

——Stephen Hawking: theoretical physicist, cosmologist, and author

I have postulated that God loves mathematical elegance, as well as loving to

create sentient beings, so something like this might explain both why the laws of physics, and the quantum state of the universe, and the rules for getting from those to the

probabilities of observations, seem much simpler than they might have been, and why

there are sentient experiences with a rather high degree of order.

—Don Page: theoretical physicist, doctoral student of Stephen Hawking, and

evangelical Christian.

Chapter 6

Quantum Field Theory

Questions of Quanta

Certainly attempting to explain what the Higgs boson actually is and why it is important has been no easy task for physicists. Since it was discovered in 2012, there have been a number of

misrepresentations and discrepancies in explaining it to the rest of the world. Many times, this comes through in the form of sensationalistic headlines in news stories, fueled more by rumor than actual science. However, this is to be expected. To be able to get a full grasp on the discovery, one needs a lot of foundational background information.[143] We do not have enough space in this book to provide every piece of available information, but we have enough to get the main ideas across in a way that will be understandable to the general public.[144]

It all begins with the idea of *quanta*. The word “quanta” is the plural of “quantum.” The word “quantum” refers to a single, indivisible unit of physicality. For example, light is made of tiny, indivisible particles known as photons. Therefore, the quantum of light is the photon.

Particles such as photons are also known as “fundamental” or “elementary” particles, meaning

they are not made of smaller particles themselves. Fundamental particles are as small as it gets.

They are the true building blocks of nature.

There are basically two classes of particles: bosons and fermions. Bosons are particles

that carry forces while fermions are particles that make up matter. One of the biggest differences between the two is that more than one boson can occupy the same point in quantum space while fermions cannot. Fermions, in a sense, clump together to form matter. Bosons, by contrast, do not take up space like fermions, so there can be two or more bosons occupying the same point of quantum space with no problems. Bosons, carrying forces, can combine to make a larger force field, such as the magnetic field or the gravitational field.

There are essentially four kinds of forces, each having an associated boson.[145] The force of gravity is carried by gravitons, although gravitons have never been directly observed.[146]

Photons carry the electromagnetic force.[147] There is also the strong nuclear force, which holds quarks together inside an atomic nucleus by particles called "gluons." Lastly, there is the weak nuclear force, which has to do with nuclear decay (the process of degradation of the atomic nucleus), carried by three different particles: the Z boson (electrically neutral), the W+ boson (positive electric charge), and the W- boson (negative electric charge).

There is a wide array of fermions as well, but for now, we will mainly focus on the

bosons to help explain the Higgs. Before we can get into what the Higgs boson is, why it is important, and everything in between, we must look at particles themselves and address a few questions. These questions will lead to incredible answers that have the potential to redefine reality as we currently perceive it.

Problems with Particles

There are phenomena within quantum physics that seem almost impossible, if not directly improbable. One of the biggest questions is how something, such as light, can exist both as a particle and a wave. It seems that merely by the act of observation, reality on the quantum level can change. This is explained in what is known as *wave-particle duality* (the ability of quanta to act as waves and particles).

Wave-particle duality focuses on elementary particles and basically states that the idea of a “particle” or a “wave” cannot fully describe the behavior of quantum-level objects. Concerning this phenomenon, famous theoretical physicist Albert Einstein wrote:

It seems as though we must use sometimes the one theory and sometimes the

other, while at times we may use either. We are faced with a new kind of difficulty. We

have two contradictory pictures of reality; separately neither of them fully explains the

phenomena of light, but together they do.[148]

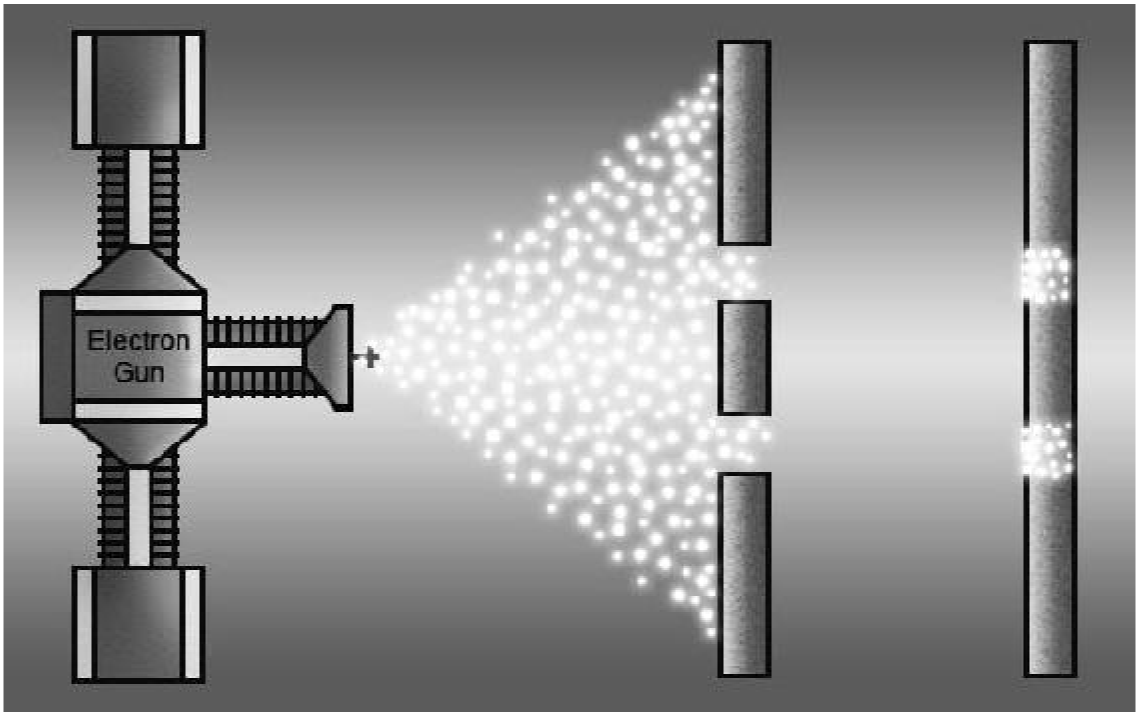
Einstein introduced the idea of light being made of particles, but physicist James Clerk

Maxwell had shown that light also behaves as waves.

A famous experiment named the “double-slit experiment” shows this wave-particle

duality. Imagine a gun firing electrons toward a barrier that has two vertical and parallel slits.

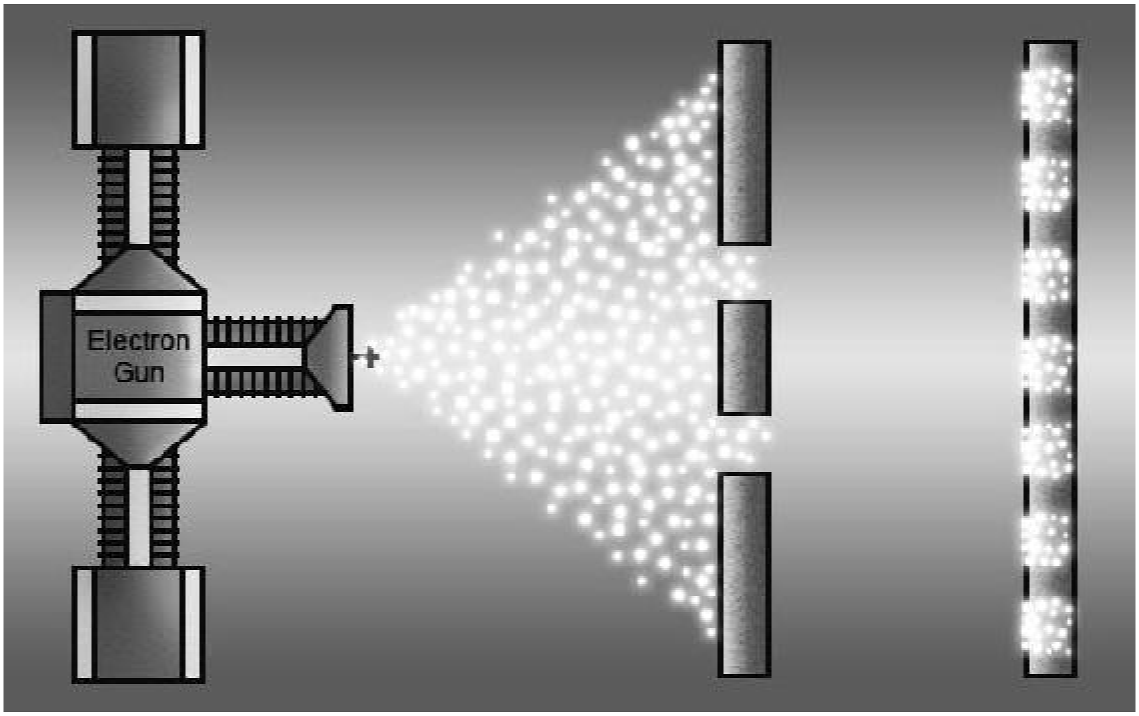
Now imagine on the other side of the barrier is a screen where we can see the pattern of the electrons that go through the slits. We would assume, as did those who first conducted this experiment, that the pattern on the screen would be two vertical and parallel stripes mimicking the slits in the barrier, as in Figure 15.



Top view of the double-slit experiment: What we would expect

Strangely enough, this assumption would be wrong. The pattern that shows up on the

screen is multiple vertical stripes—more than two. This is called an “interference pattern,” as seen below.



Top view of the double-slit experiment: What actually happens

This shows that, though they look like particles, electrons behave as waves. This is one of the most important principles of quantum mechanics.[149] To help in understanding the wave phenomena, imagine both the double-slit barrier and screen half-submerged in water. Now

imagine, instead of a gun, we were to make ripples in the water by dropping stones. The ripples would enter the two slits. The slits would then disrupt the ripples, causing two sources of ripples on the other side of the barrier. These two ripples would cancel each other out in places and increase in other places. The high places would mark the screen while the canceled-out places would cause gaps. This would result in an interference pattern on the screen.

The same thing happens with the electrons. It is the waves themselves that cause the interference pattern. This begs the question: How can a particle also be a wave? In a sense, it's both, but each is different.

In *Quantum Creation* (by Josh Peck), a few examples are given of how God's creation seems to convey ideas about various aspects of His nature.

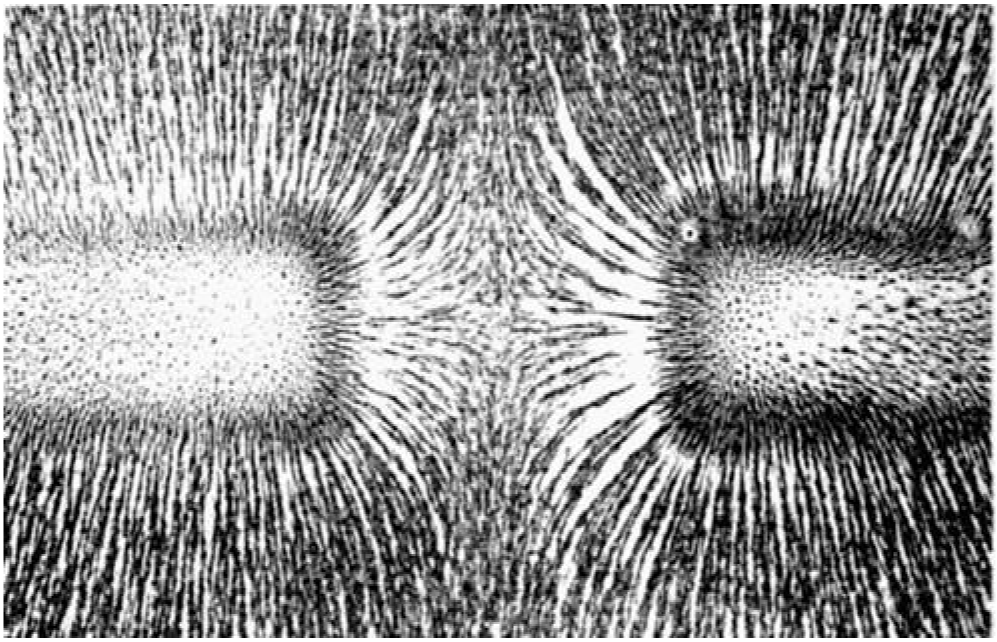
When we think about Jesus and God (YHWH), we can almost imagine this same type of wave-particle duality. Jesus is who mankind can actually see and interact with, just as the particle is the thing that can be observed. The wave nature of the particle is like YHWH Himself; we can see effects of Him but we cannot observe Him directly, for the only way our minds can process God is through Jesus Christ. In the same way, due to our limited human perception, the only way our minds can process a true wave is through the idea of a particle. One might ask, how would an example of the Holy Spirit fit into all of this? We might find the answer as we explore quantum fields themselves.

Fascination with Fields

Quantum Creation notes how quantum particles can do seemingly impossible things, such as appear in more than one place at one time and appear or disappear completely. As it turns out, the answer to how these things are possible can be found in the strange world of quantum field theory (or QFT). Understanding the basics of QFT will help us get a handle on the importance of the Higgs.

QFT states that particles themselves arise out of quantum fields. A field is basically a

collection of values at every point in space. For example, consider the magnetic field. If we use repelling magnets along with iron filings, we can actually see the magnetic field in the filings.



Iron filings showing the magnetic field between two opposing magnets

Imagine that for every point in space, there is a number to show what the actual value of

the magnetic field is at that point. The points between the magnets would have a higher number, because there, the field is stronger. Far away from the magnets, however, the field would be much less, so the numbers at those points would be much lower.

Another way to think about this is to consider the temperature of the air in the room.

Technically, every point in the room would have a specific temperature to it. Points closer to the floor, where it is cooler, may have a slightly lower temperature than points nearer to the ceiling.

Of course, this is only an example. While the magnetic field is a real quantum field, the

temperature in a room is just an attribute of the air. One other way to consider this is to imagine being submerged in a pool of clear water. The water is all around you even though you can see

right through it. In a sense, this could be thought of as a “water field.” Again, none of these are perfect examples. However, these can help us get our heads around fields.

The reason fields are so important goes back to particles themselves. QFT states that

particles are actually *fluctuations of quantum fields*.[150] Imagine a jump rope held by two people.

When one person moves an end of the rope up and down, it created peaks along the rope. If the jump rope represents a quantum field, the peaks would represent particles. When the value of a field increases significantly at a point in space, it resolves into an actual elementary particle. For every elementary particle, there is a field. This is what defines physical reality as we know it. All elementary particles, such as the quarks inside the atoms that make up your body, are nothing more than fluctuations of a field. This is true for every single elementary particle, be it boson or fermion.

The idea of a fluctuation, or a spike, in a quantum field might give us the wrong idea at

first. Typically, when we think of this, we imagine something like a spike in a graph on a sheet of paper. The problem is that this is only a two-dimensional representation of that spike. In reality, we live in three dimensions, and, because of that, the spike would occur in all directions from the center of the source point. Again, consider the pool of water. Imagine a bubble of air in that pool is like a spike in a field. The bubble expands in all directions at once. Such is the same for a quantum particle in a field. The spike, or increase of air from a single point in the pool, *is* the bubble, just as a quantum fluctuation *is* a particle. This is also why particles appear spherical in shape.

At every point in space, there are dozens of fields (fifty-seven known and distinct

quantum fields, to be exact, according to the standard model) with the potential of

fluctuating.[151] When a fluctuation large enough happens, that fluctuation *is* the elementary

particle. This means a fluctuation in the gravitational field is, in reality, a graviton. A fluctuation of the electromagnetic field is a photon. A fluctuation of the up quark field is an up quark. This also means a fluctuation of the Higgs field is a Higgs boson.

We can use the example of a musical orchestra to help explain this. When music is

played through the instruments, it comes out in the form of sound waves. These sound waves can compare to fluctuations in quantum fields. When you listen to the music, you don't exactly hear the entire wave; you hear the notes that are played. In a sense, the waves resolve into musical notes that our brains can process just as quantum fluctuations resolve into elementary particles.

We can think of each quantum field as a different instrument, each producing different

notes. Some instruments, such as pianos and violins, can play chords (two or more individual notes at the same time); this is comparable to boson fields since boson particles can take up the same space. Other instruments, such as trumpets, can only play one note at a time. This compares to fermions, since you can only have one fermion in one place at one time. During the concert, notes from certain instruments can come together with notes from other instruments to produce more interesting and complex sounds. In a sense, this is how more complex particles come

together. Up quarks, down quarks, gluons, electrons, and W or Z bosons can come together to form the particles that make up the atom. In this way, the entire universe, from the beginning of time to the end, can be thought of as a magnificent cosmic symphony.

Understanding reality as fields instead of particles helps explain some of the stranger

things of quantum mechanics. When we think of particles as nothing more than fluctuations in fields, suddenly the idea of a particle appearing and disappearing completely makes a lot more sense. Imagine again the jump rope. A person can move one end of the jump rope up and down to create a peak; yet if he stops, the peak will disappear. It takes energy to create a peak, just as

an energy spike in a quantum field is a particle. If the energy stops, the particle disappears. If the energy spikes again, the particle reappears.

This also helps explain, at least to a certain extent, wave-particle duality. Reality is

comprised of waves in fields. However, quantum mechanics states that when we observe a wave, the limited perception of our brains resolves the wave into a particle. The wave is the true reality while the particle is merely the reality we can see.

This also explains what light actually is. I'm sure anyone reading this who has taken high school science courses has probably come across the question of whether light is truly a particle or a wave. I'm also sure almost none of us received a simple and straightforward answer. Simply speaking, light is a wave. In reality and by nature, light is a wave in the electromagnetic field.

Yet, when we observe it, we see particles. A particle is really just an example of the limits of our own perception of reality. Waves are the true reality. Particles are just our limited version of reality.

From QFT to String Theory

When first coming across QFT, it sounds quite similar to string theory: another topic dealt with in *Quantum Creation*. In fact, string theory is sort of an offshoot of QFT. Back in the early days of Einstein, there was classical field theory.[152] From that sprang two seemingly opposing theories: quantum field theory and general relativity.[153] String theory is an attempt to join these two ideas into a single theory of quantum gravity.[154]

QFT might also share a common spiritual significance with string theory. *Quantum*

Creation explains how the idea of particles being the results of vibrating strings (string theory)

might be the effect of the creative voice of God as described in Hebrews 11:3.[155] From *Quantum Creation*:

There is one last thing to consider concerning string theory. There is an

interpretation of Hebrews 11:3 that states God not only spoke everything into existence,

but that He is still in the process of that spoken and creative word. The idea is, since God is outside of time, His spoken word is eternal and is holding reality together from the

beginning to the end of time as we know it.… This is a particularly interesting concept

concerning string theory. If string theory ever proves to be true, it could be that the

vibrations from the string are actually caused by higher-dimensional sound waves from

the eternal voice of God. Of course, I write “sound waves” for lack of better term. This

idea is speculative, however it is definitely interesting to consider.

Even though fields permeate the universe and construct reality as we know it, QFT hasn’t

quite made the break into the mainstream of the general public—at least, not nearly as much as string theory. QFT has made great strides in becoming popularized, however, due to the

discovery of the Higgs boson in 2012. This is primarily why there has been such difficulty in communicating the importance of the discovery to the general public. It's not so much about the Higgs boson as it is about the Higgs field.

Just as with all other elementary particles and their respective fields, the Higgs boson is nothing more than a fluctuation of the Higgs field. Remember, every elementary particle has a field and every field has an elementary particle. When the Higgs boson was discovered, it was proof of the existence of the Higgs field, which is the most important part of the discovery, though this is often not communicated very well to the general public. The reason for this might

be best summed up by the words physicist Sean Carroll spoke while giving a presentation about the discovery of the Higgs boson:

There are particles in the world? No there aren't. That's the secret that we

physicists have never told you, but here I am, I'm going to tell you right now. The reason why you're allowed to think of particles is because of quantum mechanics. The world is

made of fields. But quantum mechanics says when you look at the world, you don't see it

directly. What really exists, according to quantum mechanics, is immensely richer than

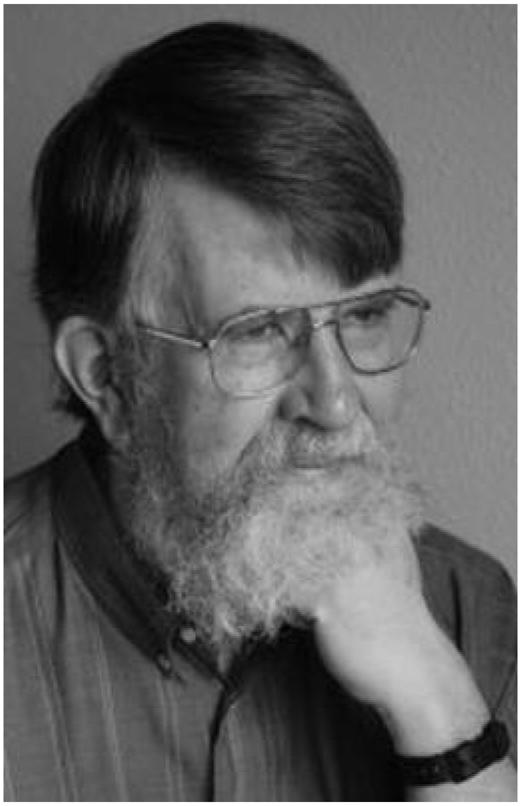
the things we can actually observe.[156]

Again, we can think back to the example of the jump rope. Imagine you are a flea on the

jump rope, not knowing the jump rope or the peaks even exist. The jump rope is your entire reality, yet you know very little about it. The discovery of the Higgs boson is like discovering that peaks actually exist. Sure, the peaks are interesting, but even more than that, it proves the existence of the jump rope that comprises the entire physical reality around you. Obviously,

the discovery of the overall nature of reality is far more exciting and important than the discovery of a small piece of that reality. The Higgs boson is important and interesting, but even more, the Higgs field gives us a clearer picture of the physical reality all around us.

Interview with Professor Don Page



Professor Don Page

Professor Don Page is a theoretical physicist at the University of Alberta, Canada, though he was born in America. His work focuses on quantum cosmology and theoretical gravitational physics.

He is noted for being a doctoral student of Professor Stephen Hawking in addition to having published several journal articles with him. Page has also contributed guest posts to Dr. Sean Carroll's online blog[157] and, along with his impressive background in physics, he is an evangelical Christian.

Because of these qualities and his expertise, I (Josh Peck) contacted Professor Page for an interview to be included in this book. He was happy to oblige and was very generous with his

limited time to provide extensive answers to my questions. The professor's insights can be of great help in understanding some of the things we discuss throughout this book.

JOSH PECK: How did you come to know Jesus?

PROFESSOR PAGE: My parents were Christians, from the Southern Baptist

denomination, and read to me from the Bible and other Christian literature from an early age. Also, my Uncle Weslie was a pastor in Missouri and sent us Christian literature in Alaska, where we lived in villages (where my parents taught elementary school) that often did not have church services in English. I came to realize that I needed to make my own decision to follow Christ, and at age twelve while visiting relatives in Missouri, I went forward in my uncle's church and made a public profession of faith, followed up by baptism a few days later.

JOSH PECK: How did your interest in physics begin?

PROFESSOR PAGE: My parents encouraged an early interest and aptitude I had in

mathematics. I also read a bit about physics and can remember being impressed by W. A.

Fowler, "Origin of the Elements," Saturday Evening Post (vol. 232, pg. 40 [1960]), which appeared when I was eleven years old. However, I was a bit uncertain about nuclear physics, because at that early age the only use of it that I knew was for making bombs.

JOSH PECK: Are there challenges to being a Christian and a theoretical physicist?

PROFESSOR PAGE: Christianity does focus more on the personal aspects of the

universe, whereas theoretical physics focuses more on the mathematical aspects. Sometimes this leads to a bit of tension, but I do not find these in conflict. I often say that I have never seen any challenge to Christianity from science so severe as the problem of evil, which people from all areas face and which has been discussed as far back as the book of Job.

JOSH PECK: How can studies such as quantum field theory help aid in our understanding of some of the mysteries of quantum mechanics?

PROFESSOR PAGE: Quantum mechanics, in its limited sense, is quantum theory applied

to a definite number of particles, which can generally be described by their positions and spins.

Quantum field theory is quantum theory applied to fields, which are entities that can vary everywhere in space (such as the electric field that has a strength and direction everywhere in space). Most of the basic mysterious aspects of quantum theory appear in quantum mechanics as well as in quantum field theory, so I am not sure how studies in quantum field theory can aid in our understanding of the basic mysteries of quantum mechanics, though quantum field theory does bring in more mysteries of its own. Furthermore, the full quantum theory of the universe, including gravity, may go beyond both quantum mechanics and quantum field theory, which appear to be just approximations to the full quantum theory.

JOSH PECK: There are different views to explain wave-particle duality; what are your

personal thoughts?

PROFESSOR PAGE: My personal view is that classical waves and classical particles are

analogous to some of the properties of quantum theory, but quantum theory is its own kind of reality not completely captured by these classical analogues. Quantum theory is described by certain mathematical formulas, but not completely by the picture of either classical waves or classical particles.

JOSH PECK: Are there other theories outside of string theory, such as loop quantum

gravity, that may provide a clearer picture of the early universe, and if so, in what ways?

PROFESSOR PAGE: Loop quantum gravity is candidate theory for quantum gravity that is an alternative to superstring/M theory. It is not yet clear which, if either, of these partially formulated theories is correct. A larger number of physicists have chosen to work on superstring theory, so it seems that a larger number think it is the more promising theory, but of course majority opinions do not determine truth in science.

JOSH PECK: There are some people who fear certain hypothetical outcomes from

experiments at the LHC at CERN; do you believe this fear comes from a misunderstanding of the technology, or are there real reasons for worry?

PROFESSOR PAGE: One worry has been that a tiny black hole might form and not then

quickly evaporate away as predicted by Stephen Hawking's theory of black hole radiation, but instead grow to gobble up the earth. However, studies have shown that if this could happen at the LHC at CERN, it almost certainly would have happened first somewhere else in the universe where we would have seen the effects. The fact that we have not seen such effects out in space very strongly suggests that it could not happen at the LHC at CERN. Another worry is that that some strange state of matter might be formed that grows at nearly the speed of light to destroy all of the universe that we can see. But again, if this could happen at the LHC at CERN, it almost certainly would have happened elsewhere in space. The fact that our

part of the universe has not been destroyed in this way strongly suggests that it could not happen at the LHC at CERN.

JOSH PECK: One of the purposes of this book is to help explain the technology and

processes of experiments with particle accelerators; how would you explain the experiments to someone who was concerned about potential dangers?

PROFESSOR PAGE: One could explain that the particle collisions at CERN produce particles that occasionally occur way out in space but rarely here on earth (since the region here on earth is much, much smaller than that of outer space that we can see, so it is much rarer for these particles to be produced naturally in the small region here on earth). These rare particles generally just decay into particles that are much more common, but as they do so, the way they decay and interact with particle detectors can tell us a lot about fundamental physics.

JOSH PECK: Does the LHC do anything at all that nature isn't doing already?

PROFESSOR PAGE: I don't think there are any particles produced at the LHC that

aren't already being produced way out in space, but at the LHC they are being produced near particle detectors that can analyze them, whereas the same particles produced naturally are very unlikely to pass through particle detectors to be observed by humans.

JOSH PECK: If people would like to know more about you, your work, or your area of

study, where can they go?

PROFESSOR PAGE:

http://inspirehep.net/search?ln=en&p=f+a+d+n+page&of=hb&action_search=Search&sf

=earliestdate&so=d *gives access to most of the scientific papers I have written.*

http://www.aip.org/history/ohilist/34294.html *is the transcript of an oral interview several years ago about some of my early career.*

https://en.wikipedia.org/wiki/Don_Page_%28physicist%29 *is a short Wikipedia article about me, but it does not tell much.*

http://www.preposterousuniverse.com/blog/2015/03/20/guest-post-don-page-on-god-and-

cosmology/ *gives many of my recent thoughts on science and theology.*

http://www2.asa3.org/movies/ASA2014Page.mp4 *shows a lecture on "The Optimal Argument for the Existence of God" I gave to an audience mainly of Christians in science about some of my latest ideas on the subject.*

https://www.youtube.com/watch?v=4Fdv9eCTTlk *gives a related talk on cosmological ontology and epistemology at a conference on the Philosophy of Cosmology.*

(Authors' note: A very big thanks goes out to Professor Page for taking the time to

participate in this interview.)

Chapter 7

The Higgs Boson

The God Particle?

In an attempt to popularize the Higgs boson, it was given the name "God Particle." Leon

Lederman, an experimental physicist who won the Nobel Prize in 1988 for discovering there are

more than one kind of neutrino (an elementary particle produced by the decay of radioactive elements that lacks an electric charge) was the one responsible for coining the term.[158] In fact, he had used the name "God Particle" in a book he had written with Dick Teresi. As explained in their book, "the publisher wouldn't let us call it the God**** Particle, though that might be a more appropriate title, given its villainous nature and the expense it is causing." (censorship Josh Peck)[159]

As it turns out, most physicists truly dislike the name "God Particle" to describe the

Higgs boson. By contrast, the media really latched onto the name after the announcement of its discovery. It was then up to popular physicists to either accept the name or try and explain why the Higgs has no more to do with God than the rest of the particles of existence.[160] The name unfortunately stuck and has since provided a large amount of confusion and misrepresentation of the elusive particle. The purpose of this chapter is to sort out the truth from rumors and provide an accurate explanation of the Higgs boson.

The Prediction

The story of the Higgs boson prediction really begins with superconductivity. In 1949, physicist Julian Schwinger put forth an idea that

basically stated forces would always be carried by massless particles. However, in 1961, he realized there was a problem. There was a way for bosons to obtain a mass. How that might happen was still a mystery.

The answer ended up presenting itself within the idea of superconductivity (a

phenomenon of exactly zero electrical resistance). Superconductors are materials that have zero resistance to electricity, such as the magnets in the LHC. When electrical currents, made up of individual electrons, flow in a normal conductor, the electrons interact with atoms and other

electrons. This interaction causes a resistance in the flow of electricity. When the temperature is cold enough, the electrical current can flow with zero resistance.

In 1950, Soviet physicists Lev Landau and Vitaly Ginzburg suggested that a new kind of

field was responsible for superconductivity. They proposed that this field encompassed the superconductor and gave mass to photons, which would ordinarily be massless. They proposed this new field, but were not specific as to actually identify what this field was.

In 1957, American physicists John Bardeen, Leon Cooper, and Robert Schrieffer came up

with what is known as the “BCS theory” (named for the surnames of the physicists) of

superconductivity. BCS theory was able to show that particles could pair up at extremely low temperatures. These were called “Cooper pairs.” Normally, an electron would interact with

surrounding atoms and other electrons inside a conductor, thereby causing resistance. However, a Cooper pair in a superconductor could act in such a way that every interaction on one electron in the pair would exert an equal

and opposite force on the other electron, thereby cancelling out the resistance.

This connects with the idea that photons have a mass inside a superconductor. When a

photon (or any particle) is massless, its energy can range from zero to any higher number and is determined by its frequency. Particles with mass, however, have a rest energy (the minimum energy a particle can have). This rest energy is determined by Einstein's famous equation, *E=mc2*.[161] When electrons interact with atoms and other electrons in a conductor, their electric field vibrates slightly, which creates low-energy photons. That process causes the electrons to lose energy and slow down. Since, according to BCS theory, photons gain mass, there is a

minimum amount of energy required to make them. If electrons don't have enough energy to

make photons, they can't lose energy. Thus, Cooper pairs can flow through a superconductor with no resistance.

Another thing to keep in mind is that electrons, by nature, are fermions (matter particles) and not bosons (force particles). However, when they come together to form a Cooper pair, they become a boson. There is a property of fermions and bosons known as "spin." The spin of

bosons come in whole numbers (0, 1, 2), while the spin of fermions come in whole numbers plus half (1/2, 3/2, 5/2). An electron is a fermion with a 1/2 spin. When electrons pair up, their spins can either add to or subtract from one another, causing the spin to be either 0 or 1. This results in the pair becoming a boson.

The question still remained: How can photons have mass in a superconductor while

normally they would be massless? As it turned out, an unknown field with a nonzero value (a value above zero) was responsible. All other fields have a value of zero when they are at rest and nothing interesting is going on. This

unknown field, however, was determined to have a rest value higher than zero (nonzero).

Physicist Yoichiro Nambu was the first to show that this could happen even outside of a

superconductor. Nambu put forth the idea of a field with a nonzero value permeating empty

space. Nambu's models based on this idea also predicted the existence of a new massless boson.

Later on, physicist Jeffrey Goldstone supported Nambu's ideas and, along with American

physicist Steven Weinberg and Pakistani physicist Abdus Salam, developed "Goldstone's

theorem." A new set of fundamental boson fields that took on a nonzero value in empty space was now made known and given the name "scalar fields," which basically means they have zero spin (usually written as "spin-0").

In 1964, physicist Peter Higgs, aware of all that was going on with ideas surrounding scalar fields, wrote a short paper that was published in the prestigious *Physics Letters* to show how certain assumptions of Goldstone's theorem could be worked around. In a second paper, he showed a specific model in which massless bosons could be eliminated, showing how mass

could be possible with these types of bosons. This second paper, however, was rejected by

Physics Letters. Higgs added some more to the paper to show the physical consequences of his model as well as a comment noting that his model predicted the existence of a massive (meaning

"with mass" and not necessarily referring to something being overly large) scalar boson and sent it to *Physical Review Letters* in America, where it was

accepted. This was the first prediction of what is now known as the Higgs boson. In 1966, Peter Higgs released a follow-up paper that explained the properties of this boson in greater detail.[162]

There is far more to this story than what has been presented in this section; these are

merely the highlights. However, this gives the basic outline of events that led up to the prediction of the Higgs boson by Peter Higgs himself. Next, we will look at the circumstances surrounding the actual discovery.

The Discovery

It might be surprising to find out that, though the discovery of the Higgs boson was announced on July 4, of 2012, there very likely had been Higgs bosons produced at the LHC quite some time beforehand. It is estimated that one hundred thousand Higgs bosons were produced at the LHC in its first year of running.[163] If this is the case, why didn't they announce it earlier? As it turns out, the answer is based all around statistics.

After the discovery was announced, physicists had to be careful with how they worded

their explanations. Many times, they would say things like "a Higgs-like event has been

detected" or "it is very likely we have discovered the Higgs boson." There always seemed to be a certain degree of uncertainty. Speaking in this way might sound confusing, but it is actually the most accurate way to describe the discovery. With the methods used to detect particles and collect data, there really is no way to be absolutely and completely sure it was a Higgs boson that was detected. However, the chances now are astronomically high.

The main concept of how a new particle is created in the LHC at CERN is relatively

simple when considering quantum field theory. The LHC smashes two protons together and the energy from that collision vibrates the surrounding quantum fields. If the vibrations are strong enough, the energy from the collision can be transferred into a wave from any number of

quantum fields. That wave is, in actuality, the new particle. Now, due to *E=mc2*, the more energy that is put into collisions, the heavier (or more massive) the particles are that could be produced.

As a thought exercise, we can consider an opera singer and a glass window. If an opera

singer is able to sing loud enough, the glass windows will vibrate. Thus, vocal chords that have nothing to do with the glass in a physical sense are able to manipulate the window. Much in the same way, the energy from a particle collision can vibrate other surrounding fields and, if the vibration is strong enough, create particles that weren't there prior to the collision.

There is really no way to direct the energy into any one specific quantum field, so every

collision is a complete gamble. Most times, the protons that are smashed together decay (the spontaneous process of one particle transforming into other particles of less mass) into familiar particles.[164] Now, of course, the proton itself is not an elementary particle, meaning it is made of other, smaller particles. A proton is made of quarks and gluons. During a collision, it is not that these quarks and gluons come together in other ways to create new particles; not exactly

anyway. What is happening is the energy of the collision fluctuates other quantum fields to produce new particles.

There is no way to precisely predict what particle will come out of a collision, so

statistics must be used. Physicists can predict what the particles will *likely* decay into, but at times those predictions can be wrong. Physicists have to look at the data collected to actually determine what was created.

The discovery of a new particle, in a way, uses this method in reverse. Physicists have to look at the data that tells them what came out of the collision. They then have to work

backwards. They must determine what particle can decay into the particles the data showed.

Because there are only a certain number of particles and no real way to direct the energy of a collision into any certain field, one particle can decay into the same particles as a completely different particle. Also, one particle can decay into different particles at different times; it all depends on where the energy goes and which quantum fields are fluctuated. The only thing that can be predicted are percentages.

For example, prior to the 2012 discovery of the Higgs boson, physicists were able to

determine enough about the elusive particle to know the chances of what it would decay into.

They were even able to determine the mass of the Higgs boson would be 125 GeV.[165] With these determinations, they were able to calculate the statistics of what particles a Higgs boson would decay into:

57% - bottom-antibottom quark

21% - W+, W- boson

9% - two gluons

6% - tau-antitau lepton

3% - charm-anticharm quark

3% - two Z bosons

0.2% - two photons

0.2% - one Z boson and one photon[166]

This was able to show the Higgs boson was most likely to decay into heavy particles,

such as bottom quarks and W bosons, but not as much into light ones, such as up quarks, down quarks, and electrons.

The other thing physicists had to keep in consideration was the fact the Higgs boson

cannot decay into something that is heavier than itself. This is due to the conservation of energy (heavier particles take more energy to create). Since the Higgs boson only has a certain amount of energy available, it could not decay into something that would require more energy than the Higgs boson itself. It would be comparable to trying to power an entire house with a single nine-volt battery; there’s simply not enough energy.

For a Higgs boson mass of 125 GeV, top quarks would be out of the question. However,

bottom quarks are far more likely. The problem then is the fact that other particles in the Standard Model can decay into the same things as the Higgs boson, so the presence of some of those elementary particles does not necessarily constitute the presence of a Higgs boson.

The reason they have to look at what the Higgs boson decays into instead of trying to

detect the Higgs boson itself is due to the incredibly rapid decay rate (how fast it turns into other particles) of the Higgs boson. The Higgs boson simply isn’t around long enough for anything on

earth to detect it directly. Once a Higgs boson appears, it decays in the span of one zeptosecond.[167] One zeptosecond is one-sextillionth of a second.[168] This is 10-21 seconds, or 0.000000000000000000001 seconds. In other words, it is an incredibly short amount of time.

One zeptosecond is definitely too short a length of time to be detected by modern particle detectors, so physicists must look at what particles are left

over after a decay to determine what particle was created.

To make things even more difficult, 99 percent of the time, the Higgs boson decays into

something that isn't directly observed. It decays into something that then decays into a second something, and the second something is what is actually observed. For example, imagine a man exits a car, goes into his house, takes of his hat, and sets it on his counter. He then gets back in his car and drives away. Now imagine how incredibly difficult it would be for someone else, having absolutely no information concerning the car, to come in and examine the hat in order to learn as much about the car as possible. The man and the car are gone; the hat is the only real source of information. In a sense, the car "decays" in the man, who then "decays" into the hat, just as a Higgs boson decays into a particle that then decays into another familiar particle.

Physicists must examine the familiar particles to gain information about the exotic ones.

Most of the time, the Higgs boson decays into gluons or quarks (bottom-antibottom or

charm-anticharm). When they are produced, a cloud of quarks, antiquarks, and gluons is created, which then forms into jets of hadrons. Those jets are what is actually detected. From our

previous analogy, the Higgs boson is the car, the cloud is the man, and the jets are the hat.

However, many other processes can create these jets, meaning the presence of jets doesn't say directly that a Higgs boson is present. It would be as if there were many different hats in the house, each of which could belong to other members of the family who all drive different cars.

This is how the estimated one hundred thousand Higgs bosons could be produced at the LHC in its first year of running without notice.

If the Higgs boson doesn't decay into quarks or gluons, then chances are it will decay

into W bosons, Z bosons, and tau-antitau pairs. While this is more helpful to determine a Higgs boson, it all depends on what these particles decay into themselves. Tau pairs will usually decay into a W boson and a tau neutrino. Most often, the W boson will produce quarks that will lead to jets, but not always. Sometimes W and Z bosons decay directly into leptons. The W boson can decay into a charged lepton, such as an electron or muon, and a neutrino. The Z boson can decay into a charged lepton and its antiparticle. [169] Since there are no jets in the way, this produces a much clearer signal that can be detected, though these occurrences are rare. The Higgs boson decays into two charged leptons and two neutrinos only about 1 percent of the time. Even rarer, the Higgs boson decays into four charged leptons about 0.01 percent of the time. When neutrinos from a W boson decay are created, it can be difficult to determine due to energy that is

seemingly missing. When the Z boson decays into four charged leptons, there is no seemingly missing energy, so it is incredibly more definitive. However, this is a very rare occurrence.

Sometimes the Higgs boson can decay into two photons. More accurately, the Higgs

boson can create an undetermined charged particle with mass, then that particle can decay into a pair of photons. This is one of the rarest decay events; however, it provides the clearest signal and best evidence for the presence of a Higgs boson.

Back to our analogy, it would be comparable to finding a picture of the car in the hat; it is very likely that this is the car you are trying to learn about, though technically there could be other extremely unlikely possibilities, like perhaps the man carries around a picture of a friend's car in his hat. Technically possible, yet not very likely. There is, of course, much more to take

into consideration concerning the ways and processes in which the Higgs boson can decay, but this is a good overview of the basics to get the idea

across. Other particles can decay in the same or similar ways, so to pin down a Higgs boson, it is all about statistics.

When trying to detect a Higgs boson, physicists are not looking for one specific type of

event or decay, because most often it could be caused by other things having nothing to do with the Higgs boson. What they are looking for is a slightly larger number of specific events than what would normally be expected if there were no Higgs boson present. For example, if you

found a picture of a car with the name of the man written on it, car keys, a receipt for the exact make, model, and year of the car, a note signed by the man explaining his car in detail, chances would be incredibly high that this is the correct hat that corresponds to the car you are trying to learn about. However, while extremely unlikely, it is still possible all the evidence could have shown up there by other means. Yet, by adding up all the evidence, the likeliest scenario is the one stating that this hat corresponds to the car you're after.

In *The Particle at the End of the Universe*, Sean Carroll notes how most people might say that looking for the Higgs boson is like looking for a needle in a haystack. However, he states that physicist David Britton has a better analogy: "It's like looking for a bit of *hay* in a haystack.

The difference being that if you look for a needle in a haystack you know the needle when you find it, it's different from all the hay…the only way to do it is to take every bit of hay in that haystack, line them all up, and suddenly you'll find there's a whole bunch at one particular length, and this is exactly what we are doing." To quote Sean Carroll:

It's like you have a haystack with stalks of hay in all different sizes, and what

you're looking for is a slight excess of stalks at one particular size. This is not going to be

a matter of examining the individual bits of hay closely; you're going to have to turn to statistics.[170]

Imagine that you have a coin and you want to know how probable it is that it will land

either on heads (or tails) when you flip it. Prior to flipping, you estimate the probability to be 50

percent for heads and 50 percent for tails.[171] To test it accurately, you cannot just flip the coin a couple of times. If you only flip it twice and both times land on heads, you would have to conclude the probability of the coin landing on heads is 100 percent and tails 0 percent. This obviously is not accurate, but that is what the limited amount of data would tell you. Therefore, you need more flips, and the more flips you record, the more accurately you can deduce the probability.

If we flip the coin a hundred times, we would get more data to provide a more accurate

probability. If the coin was perfectly fair in the experiment, it should land on heads fifty times and on tails fifty times. However, if there was a slight deviation from the original estimation, say, if we got fifty-two heads and forty-eight tails, we would not directly have to conclude that something is altering the experiment. The question then becomes how much of a deviation would be needed to convince us there is something altering the number of coin flips.

Of course, that is not an easy question. The way that probabilities work, we could flip the coin a thousand times and get heads every single time. Though it is unlikely, there is nothing saying it is impossible. However, if that were to happen, we might conclude that it is far more likely that something is affecting the experiment rather than it just being an extremely rare occurrence. Satistics never exactly prove something is one way or another; they only show what is more plausible.

In the case of detecting particles and trying to determine decays, there is only a certain number of events that are recorded, so certain deviations are

to be expected. Physicists can actually calculate how much deviation would be expected under normal circumstances, which is labeled with the Greek letter *sigma*. This allows them to show how big a deviation is from *sigma*.

For example, if the difference between what is observed and what would normally be expected is twice as big as the expected deviation, it would be called a “2-sigma result.”

If a coin is flipped one hundred times and it lands on heads between forty-five and fifty-

five times, this would be a result within 1-sigma, which occurs 68 percent of the time. A

deviation of more than one 1-sigma occurs 32 percent of the time, which is still fairly often and could happen by chance without anything affecting the experiment. The greater the sigma, the more unlikely the result. If you flipped sixty heads out of one hundred, for example, it would be a 2-sigma deviation, which happens only 5 percent of the time. It is unlikely, but still not impossible. Getting sixty-five heads out of one hundred would be a 3-sigma deviation, which occurs 0.3 percent of the time. This is far less likely, and we would have a more legitimate reason to think the experiment is somehow being affected. If we flipped seventy-five heads out of one hundred, it would be a 5-sigma result, which occurs less than one in a million times. This would be enough to conclude fairly that this is not a normal statistical deviation and something is affecting the experiment.

This is how it works in detecting particles. There is an original hypothesis and

expectation, then if something other than what is expected occurs, the sigma number is

determined. Typically, a 3-sigma deviation is considered as evidence for something while a 5-sigma deviation is needed to claim something as an official discovery. In December of 2011,

there was a peak in the data with a significance of 3.6-sigma at ATLAS and 2.6-sigma at CMS.

This suggested a Higgs boson, but was not enough to warrant an announcement of discovery.

When the Higgs boson discovery had been announced, the confidence of certainty came

from a high sigma number. During the official announcement, it was shown that different

channels were used to make the actual discovery. From the data collected at CMS, it was shown a 4.1-sigma peak was seen in the two-photon events at 125 GeV. Next was shown the four-charged-lepton events, which showed a peak of 3.2-sigma significance. When these are

combined statistically, it works out to a 5-sigma. From the data at ATLAS, there was a peak at 125 GeV with a 4.5-sigma significance in the two-photon events. The four-charged-lepton events showed a peak of 3.4-sigma significance. Combining these also resulted in a 5-sigma result. The search was over. The Higgs boson had been found.

The official announcement was made by way of a presentation in Geneva, Switzerland,

on July 4, 2012. The presentation itself consisted of two PowerPoints showing the results of the data collected from CMS and ATLAS. Peter Higgs himself was present in the audience and,

when the announcement of the discovery was made, he understandably became emotional.

Afterwards, he explained:

During the talks I was still distancing myself from it all, but when the seminar

ended, it was like being at a football match when the home team had won. There was a

standing ovation for the people who gave the presentation, cheers and stamping. It was

like being knocked over by a wave.[172]

The Reality of the Higgs Field

Now that the discovery had been made and officially announced, it was up to physicists around the world to explain the significance to the rest of the public. This was done with varying results of accuracy, understanding, and success. After the initial wave of various media outlets'

coverage of the discovery, most in the general public were left believing the Higgs boson was what gives everything else mass. However, this is simply not true.

The importance of the Higgs boson discovery is that it was proof of the existence of the

Higgs field. The Higgs field was the real important discovery. It is something that permeates all points of space throughout the known universe. It is the Higgs field that determines mass in elementary particles. The amount of interaction with the Higgs field is the particle's mass.

Remember, earlier we used the example of a pool to help in visualizing a quantum field. We can also use the example of the pool to help explain an interaction with the Higgs field.

When you are submerged in the pool, you can move your arms through it. The more

energy you put into your movements, the more difficult it will be to do so. This is because there is a stronger interaction between yourself and the water. The water is providing resistance.

However, if you move your arms slowly, it is much easier to move through the water. The less energy, the less resistance and interaction.

This is how a particle picks up mass by interacting with the Higgs field. If a particle

interacts strongly with the Higgs field, that interaction resolves into a larger amount of mass. If a particle interacts only slightly with the Higgs field, the particle will have a smaller amount of mass. Finally, if a particle doesn’t interact at all with the Higgs field, such as a photon, then it has zero mass. Since particles are just fluctuations in fields, this helps explain how a particle can be massless and still exist. It just simply does not interact with the Higgs field.

Chapter 8

Supersymmetry

The Standard Model

The Standard Model (the collection of all known elementary particles) is the backbone of particle physics. It is what describes the building blocks of reality as we know it. An entire book could be written on this subject alone to really dig into the complexities of every known elementary particle, but a brief overview will suffice for the purposes of this book.

First, we can look at fermions: the matter particles. There are twelve fermions in total.

The six particles that react to the strong nuclear force are called *quarks,* while the six that don't are called *leptons*. Quarks are also confined in hadrons while leptons are not. The six quarks and leptons are arranged into pairs called *generations*, as can be seen in Figure 19.

CHART OF FERMIONS			
QUARKS		LEPTONS	
UP-TYPE QUARKS	DOWN-TYPE QUARKS	CHARGED LEPTONS	NEUTRINOS
Top Charm Up	Bottom Strange Down	Tau Muon Electron	Tau Neutrino Muon Neutrino Electron Neutrino

Chart showing the different fermions in the Standard Model

The main difference between quarks and leptons are that quarks are confined inside

larger particles while leptons are free to move independently through space.

The twelve fermions can be looked at, and possibly better understood as, six pairs of

particles. Each charged lepton is matched with an associated neutrino. The top quark is matched with the bottom quark, the charm with the strange, and the up with the down. If it weren't for the Higgs field, the paired particle would actually have identical properties.[173] Because of the interaction with the Higgs field, the paired particles have different electrical charges and masses.

Each type of quark comes in three *colors*: red, green, and blue. It would be acceptable to count these as separate particles, meaning there would be eighteen quarks instead of six.

However, due to the symmetry (identical properties) brought on by the strong nuclear force, it isn't necessary. All colored particles are confined into colorless combinations. These

combination are known as *hadrons*.

CHART OF BOSONS				
FORCE	PARTICLE	MASS (GeV)	CHARGE	SPIN
Electromagnetic	Photon	0	0	1
Strong Nuclear	Gluons	0	0	1
Weak Nuclear	W+, W-, Z	80.4, 80.4, 91.2	+1, -1, 0	1, 1, 1
Gravitational	Graviton	0	0	2
Higgs	Higgs Boson	125	0	0

There are two types of hadrons: baryons and mesons. Baryons are made of three quarks,

one of each color. Protons and neutrons are both baryon-types of hadrons. Protons consist of two up quarks and one down quark, while neutrons consist of two down quarks and one up quark.

Mesons, on the other hand, are a bit different. An example of a meson is the pion, of which there are three types. One has a positive charge, one has a negative charge, and one is neutral.

Next we can look at bosons: the force particles. Each boson corresponds to a force, as can be seen in Figure 20.

Chart showing the different bosons in the Standard Model

The particle of the electromagnetic force is the photon, which is massless, neutral (no

charge), and has a spin of 1. Gluons, which carry the strong nuclear force, are also massless, neutral, and have a spin of 1. The difference between gluons and photons is gluons carry color, so they are confined inside hadrons (just like quarks) while photons are not. There are eight different kinds of gluons, but because of the symmetry, there is no need to differentiate them.

The weak nuclear force is carried by W+, W-, and Z bosons. Each of the two W bosons have a mass of 80.4 GeV while the Z boson has a mass of 91.2 GeV. There is a positively

charged W boson (W+), a negatively charged W boson (W-), and a neutral Z boson. They all

have a spin of 1. If it weren’t for the influence of the Higgs field, the W and Z bosons would only have three varieties instead of eight.

Gravitons (the particle of the gravitational field) carry the gravitational force. They are massless and neutral but have a spin of 2. Gravitons themselves have never been detected, yet they are known to exist due to the presence of the gravitational field. Again, every field has an associated particle. The Higgs is known as a *scalar* boson, which means it has a spin of zero. It is also neutral and has a mass of 125 GeV.

There is, of course, much more that can be looked at in terms of the Standard Model.

What we have briefly went over in this section will be enough to understand the rest of the book.

A basic understanding of the Standard Model is needed for what we will be looking at next: the ideas of symmetry and supersymmetry.

Simple Symmetry

The Higgs field is said to break symmetries (change identical properties), which is one of the things that makes it so unique. What that means, among other things, is the universe would be a much different place if it weren't for the Higgs field. Particles would possess different

characteristics. For example, electrons would be massless and move at the speed of light. They would not be able to settle with protons and neutrons to create atoms. Life as we know it would be impossible.

The universe is comprised of fields, but most fields are essentially "turned off" (set at zero) in empty space. That means there are no waves, energy, particles, or anything really interesting going on.[174] The Higgs field is different. In empty space, the Higgs field is not at zero. It takes on a steady positive value of energy everywhere all the time. The Higgs boson is a vibration set in relation to that value, instead of every other particle which is a vibration in relation to zero.

Normally, a field will vibrate to create a wave, then eventually it will settle back down to its resting state at zero. The difference with the Higgs is its resting rate is not zero. The lowest energy state of the Higgs field is stuck at a value of 246 GeV.[175] An often-used analogy to help illustrate this is that of a pendulum. Imagine a pendulum hanging from the ceiling completely still. This would be a normal field set to zero. If we push the pendulum, it will begin to swing back and forth. This happens because we added energy. Eventually, the pendulum will stop

swinging and resume to its original position once it uses all the energy we added.

The Higgs field is different. Imagine a pendulum, only this time fastened to the floor

instead of the ceiling. While it is the same mechanism, it now behaves much differently. There are now two possible lowest-energy positions: one resting on the floor to the right and one to the left. If we want to have the pendulum right in the middle and vertical, we have to add energy to lift it. If we don’t hold the pendulum in place, it will eventually fall either to the left or the right.

This is similar to how the Higgs field behaves. It would actually require energy to have

the Higgs field at zero. Its lowest-energy state is a fixed, nonzero value everywhere in space.

Any other field is at rest at zero, like the pendulum hanging from the ceiling. The Higgs field is at rest at a nonzero value, like the pendulum fastened to the floor. No one really knows why this is the case, but it is a good thing that it is. If the Higgs field wasn’t set at a nonzero value, the

universe would be a much different place. It is this nonzero value that causes the Higgs field to break symmetries.

The idea of symmetry is a pretty simple one. In the broadest sense, symmetry conveys the

idea of an object being the same on both sides. Imagine the letter “T”. We can say the letter “T”

is symmetrical because we can divide it in half vertically and both sides would appear the same.

However, there is a limit to its symmetry. If we were to try and divide the letter horizontally, the top and bottom halves would not match equally.

The letter “F”, by contrast, is not symmetrical. No matter if you divide it in half

vertically, horizontally, or anywhere in between, the two halves will not look the same. The letter

“O” has a lot of symmetry—much more than that of the letter “T”. This is because you can bisect it anywhere along its center axis and both halves will appear the same, given the “O” you are working with is a perfect circle.

The reason symmetry is so important is because it provides a set of guidelines on how

things should work. The same idea is utilized in physics. How an experiment should work can often be predicted by understanding the symmetries involved. Symmetry in particles or fields can show physicists what kind of particles they can exchange for others. An example is something we touched on earlier: quarks.

As we learned earlier, there are three colors of quarks: red, green, and blue. Due to the

underlying symmetry of quarks, the color of any given quark really doesn’t matter and won’t alter the experiment or observation you are trying to achieve. It is just like the letter “O”; whether the two halves you are working with were achieved by bisecting the “O” horizontally or vertically, it doesn’t matter because it is the exact same regardless. If you have three quarks in

front of you, it makes no difference which ones you label as red, green, and blue. You can switch the color labels around and the physics still stays the same. The same with the two halves of the

“O”; it doesn’t matter which you label as “half 1” and “half 2”, everything still works out the same as long as you have two halves.

By contrast, if you had one quark and one photon, you can’t switch their labels. In the

same way, you cannot replace one half of a circle with one half of a square. Similar to these shapes, quarks and photons behave in very different ways.

They each have a different mass, charge, and interaction. This means they are not symmetrical. This is one example of what

physicists mean when they refer to the symmetry of particles.

If not for the Higgs field, certain particles would have symmetry. For example, without a

Higgs field, there would be a symmetry between the electron and muon. In essence, they would be identical in every way. You would be able to switch a muon for an electron and get the same result. Symmetry would also be found in the up, top, and charm quarks as well as in the down, strange, and bottom quarks.[176] But, due to the presence of (and specifically the particles'

interaction with) the Higgs field, those symmetries are not present. This is why the Higgs field is said to "break symmetries." The symmetries that would be present otherwise are broken due to the presence of what is being described: in this case, the Higgs field.

It would be like if you had half of a circle made of white plastic and half of a circle made of white paper. Together they make a perfect circle and are completely symmetrical. However, let's say you put these two halves in water. The plastic remains as is but the paper falls apart.

Essentially, the paper interacts with the water and obtains different properties while the plastic does not. The water breaks the symmetry the two circle halves once had. In this example, the water represents the Higgs field while one half of the circle can represent an electron and the

other can represent a muon. Without the Higgs field, there would be symmetry. With it, due to different interactions, symmetry is broken.

Supersizing Symmetry

Now that we understand the basics of symmetry, we can get into something that is far more

interesting: supersymmetry. The idea of supersymmetry gets into all sorts of strange areas, such as dark matter and extra dimensions. However, supersymmetry has never been proven. It is just a hypothetical idea. If supersymmetry turns out to be true, it could prove we live in a far stranger world than we originally imagined.

Earlier we learned of the important differences between bosons and fermions.

Supersymmetry states, in a sense, that the Standard Model is only part of the story. According to supersymmetric theories, every particle we know of today is paired with an unknown partner, also known as a *superpartner*. The known particle and its superpartner are interchanged by a supersymmetry transformation, which turns a boson into its fermion partner and a fermion into its boson partner. This basically states for every known force particle, there is an unknown symmetrical matter particle, and for every known matter particle, there is an unknown

symmetrical force particle. Astonishingly enough, when the mathematics used to describe how particles behave are manipulated by making a supersymmetry transformation that interchanges bosons for fermions (and vice versa), the equations end up looking identical.[177] Mathematics seem to support supersymmetry.

This type of symmetry is a bit different than examples we looked at before because it

involves particles of very different properties. However, if the bosons and fermions are present in equal numbers, the symmetry can exist. For example, imagine you are playing a game of canasta (a card game that typically uses two decks of playing cards shuffled together) with a friend.

Imagine that the backs of all the cards are red and each deck is identical in every way. These two decks would have a perfect symmetry. Now imagine that instead of the backs of both decks

being red, one is red and one is blue. As long as both decks have an equal number of cards, no advantage is given to either player. There is still

symmetry.

Supersymmetry works a little like that. As long as there is an equal number of fermions

and bosons, supersymmetry can exist. The deck of red cards is like the full assortment of

fermions according to supersymmetry. Each card has a different value (number and suit), just as every fermion is unique in different ways. The same goes for the blue deck, representing the bosons. By analogy, supersymmetry says we are only aware of about half of each deck, if even that. The halves we know about don't match up at all. Somewhere out there, the other half of each deck exists and, if we can find them, we will see how the red and blue decks are actually interchangeable and symmetrical. That's supersymmetry.

If the universe is truly supersymmetric, it would mean we only have, at most, half of the

particles in the Standard Model. The universe would have to contain at least twice as many particles as are currently known. For example, the superpartners of quarks and leptons would have to be new bosons that have yet to be discovered. In fact, these new, hypothetical particles have already been named. In general, the supersymmetric partner of any fermion (new bosons) has the same name as the fermion, only with an "s" added at the beginning. So, the bosonic superpartner of a quark is called a *squark* and the superpartner of a lepton is called a *slepton*.

Supersymmetry also says that bosons would have fermionic superpartners. These are generally named with an "-ino" at the end. For example, the superpartner of a gluon would be called a

"gluino" and the superpartner of the Higgs boson would be called the "Higgsino." This naming strategy sounds a bit silly, but it is pretty effective and memorable.

Superpartners of both fermions and bosons would have the same charge, mass, and interaction as their counterparts. So far, no superpartner has ever been found, yet many physicists take the theory very seriously. There are, in fact, many beneficial advantages to physicists if supersymmetry is shown to be an accurate description of the universe. For example,

supersymmetry can aid in discovering a unification of forces (developing a common theory that explains and applies to all four known forces). Surprisingly, when the additional particles supersymmetry requires are taken into consideration, the three forces of electromagnetism, weak nuclear, and strong nuclear unify more precisely than ever before.[178] The same may prove to be true for the gravitational force as well.

Another advantage is it may lead to an explanation of dark matter. Dark matter is a type

of matter in the universe that has been discovered through detecting and measuring its

gravitational effects, though has never been directly observed. Dark matter is still a big mystery.

Supersymmetry is one of the leading theories to explain what dark matter actually is. It may turn out that dark matter is comprised of these supersymmetric particles, which would explain why they seem to behave differently than ordinary matter.

There is much hope within the physics community that supersymmetric particles will be

found with the LHC at CERN. If even one superpartner to any known particle of the Standard Model was to be found, it would certainly be big news in the world; possibly even greater than that of the Higgs boson discovery. With all the advantages and knowledge that physicists can gain from a discovery such as a supersymmetric particle, it is no wonder many are excited about the possibility. It is also no wonder that, given what could possibly come from such a discovery, many researchers are left more than a bit nervous.

PART 3: Quantum Prophecy

The bedrock nature of space and time and the unification of cosmos and quantum

are surely among science’s great “open frontiers.” These are parts of the intellectual map where we’re still groping for the truth—where, in the fashion of ancient cartographers,

we must still inscribe “here be dragons.”

—Martin Rees, cosmologist and astrophysicist

Readers probably haven’t heard much about it yet, but they will. Quantum

technology turns ordinary reality upside down.

—Michael Crichton, author, physician, producer, director, and screenwriter

Quantum computation is…a distinctively new way of harnessing nature…. It will

be the first technology that allows useful tasks to be performed in collaboration between

parallel universes.

—David Deutsch, physicist and pioneer for the field of quantum computers

Chapter 9

The Future of CERN

Increasing the Power

Early in 2015, it was announced that the LHC, after being idle for two years, would be switched back on at nearly double the power.[179] At first, it was announced that the LHC would start up again at 14 TeV, which is the maximum energy the LHC was designed to handle.[180] This increase would have been exactly double its original 7 TeV, which later rose to 8 TeV. It was decided, however, the power would instead be increased to 13 TeV. CERN released a post on

their website explaining the reasons why. According to CERN:

The decision to begin the LHC's second run at 13 TeV has been taken in order to

optimize the delivery of particle collisions for physics research, and thereby speed the

route to potential new physics. It is based on the properties of the 1,232 superconducting dipole magnets that guide the beams around the LHC's 27-kilometre ring. The higher the

beam energy, the higher the magnetic field needed to maintain a constant orbit, and the

higher the electric current flowing in the magnet's superconducting coils.… When a new superconducting magnet is qualified for use, it needs to be trained. That involves steadily increasing the current until the magnet quenches, then starting again.… Before the LHC

started operation, all of its magnets were trained up to a current equivalent to a collision energy of over 14 TeV. Tests with individual magnets, along

with hardware

commissioning tests in 2008, have shown that for some dipole magnets the memory is

slightly lower than expected, demanding a larger number of quenches to reach nominal

field. However, retraining these magnets to 13 TeV should require only a short period of

time, whereas retraining to 14 TeV would take longer, taking time away from physics

research. That's why the best way to get to new results quickly, at an energy considerably higher than ever achieved before, is to start operation at 13 TeV.[181]

There are plans, however, to increase the power to the maximum 14 TeV in the future,

possibly in 2017 or 2018. When exactly this will be done is still up for speculation, but it is probably safe to say it won't take long. Of course, this begs the question, what is the significance of increasing the power and what might come of it?

There are those who fear the possibility of creating black holes or strange subsets of

matter with a higher power of 14 TeV. While we will be getting into some of these things more specifically throughout the rest of this book, for now we can just say that according to the physicists involved, the probability is very low. Of course, that doesn't inspire much confidence to the general public. Very low still means possible, right?

That's exactly what Walter Wagner thought. Wagner was a former nuclear safety officer

who tried to file a suit in Hawaii against the LHC. He claimed the LHC would re-create the Big Bang and destroy the world. When the case was thrown out, Wagner appealed to federal court.

This also went nowhere. However, what did happen was an increase of the public's mistrust against physicists. It also didn't help that the potential risks were not communicated properly to the general public. It was a mixture of faults, including the physics community admitting things are possible without properly communicating how improbable they are and the sensational media grabbing hold of and greatly exaggerating those improbabilities. To help sort this out, a few physicists have made great strides in better communicating the probability of potential risks.

Consider these words written by physicist Sean Carroll:

CERN and other physics organizations took the need to proceed safely very

seriously, sponsoring multiple expert reports on the subject, all of which concluded that

the risk of disaster was completely negligible … One thing working against the physicists

was their natural inclination to be both precise and honest, often to the detriment of

getting their point across…because scientists like to be precise and consider many

different possibilities, they tend to dwell lovingly on all the scary-sounding scenarios

before reassuring us that they are all quite unlikely.… Imagine opening your refrigerator

and reaching for a jar of tomato sauce, planning to make pasta for tonight's dinner. An

alarmist friend grabs you before you can open the lid, saying, “Wait! Are you sure that

opening that jar won’t release a mutant pathogen that will quickly spread and wipe out all life on earth?” The truth is, you can’t be sure, with 100% certainty. There are all sorts of preposterously small probability disaster scenarios that we ignore in our everyday lives.

It’s conceivable that turning on the LHC will start a chain of events that destroys the

earth, but many things are conceivable; what matters is whether they are reasonable, and

in this case none of them was.[182]

It is the same with the increase of the LHC’s power. Many things *could* happen, but according to the physicists and people evaluating these things, those things are not probable.

That is, of course, if you are willing to believe what the physicists are telling the public.

The purpose of this book is not to convince you whether the truth is being communicated

to the public. It is not up to us, or anyone else for that matter, to tell you what is reasonable and what isn’t. It is up to each one of us, as individuals, to do our own study into all aspects of an issue before drawing conclusions about that issue ourselves. The purpose of this book is to present the information that is out there, including different viewpoints on various aspects of these subjects, and hopefully to provide you with a good head-start toward looking more deeply into these matters. With anything presented in this book, the reader has a personal responsibility to be informed, pray about all matters, and follow the direction God leads.

Big things are happening with quantum physics and, at least for now, the LHC is at the

heart of it. New particles are being discovered, new ideas about reality are being developed, and new frontiers are being explored. Increasing the power of the LHC is one method of attaining greater and clearer data to aid in learning about the universe at a quantum level. By increasing the power, physicists hope to add energy to more subtle quantum fields, bringing new and exotic particles into existence. They also hope to measure extra dimensions and possibly utilize them for things such as quantum computing and quantum teleportation.

Increasing the power of the LHC has a lot of potential benefits to physics research and, in the mind of the physicist, the world at large. What that may mean for the general public,

especially for the church, in coming years, we will just have to wait and see. Therefore, we should be using this time to learn as much as possible, while we still can, and prepare for what may be ahead.

Quantum Computing

One area of special interest at CERN is that of quantum computing. A main problem for

physicists at CERN is trying to process the enormous amount of data the LHC collects. In fact, the four (of seven total) main experiments of the LHC produce roughly fifteen petabytes of data in a year.[183]

By today’s standards, CERN has access to an impressive amount of computing power.

This includes 5,700 systems; 36,600 processing cores; 41,500 disk drives; 45,000 tape cartridges; and 160 tape drives. Even all this barely scratches the surface of the computing power needed to process all the data collected. A possible solution to this problem might be found in quantum computing.

Quantum computing relies on things like superposition (the ability of a particle to be in

more than one place at one time) and quantum entanglement (the ability of certain particles to communicate instantaneously at very large distances) to operate.[184] From *Quantum Creation* (Josh Peck):

Another interesting thing about photons is their ability to seemingly communicate

with each other by means of something at an instant. Einstein called this "spooky action

at a distance," yet we would recognize it today as "quantum entanglement." Somehow,

by means that are not yet understood, photons seem to be able to communicate vast

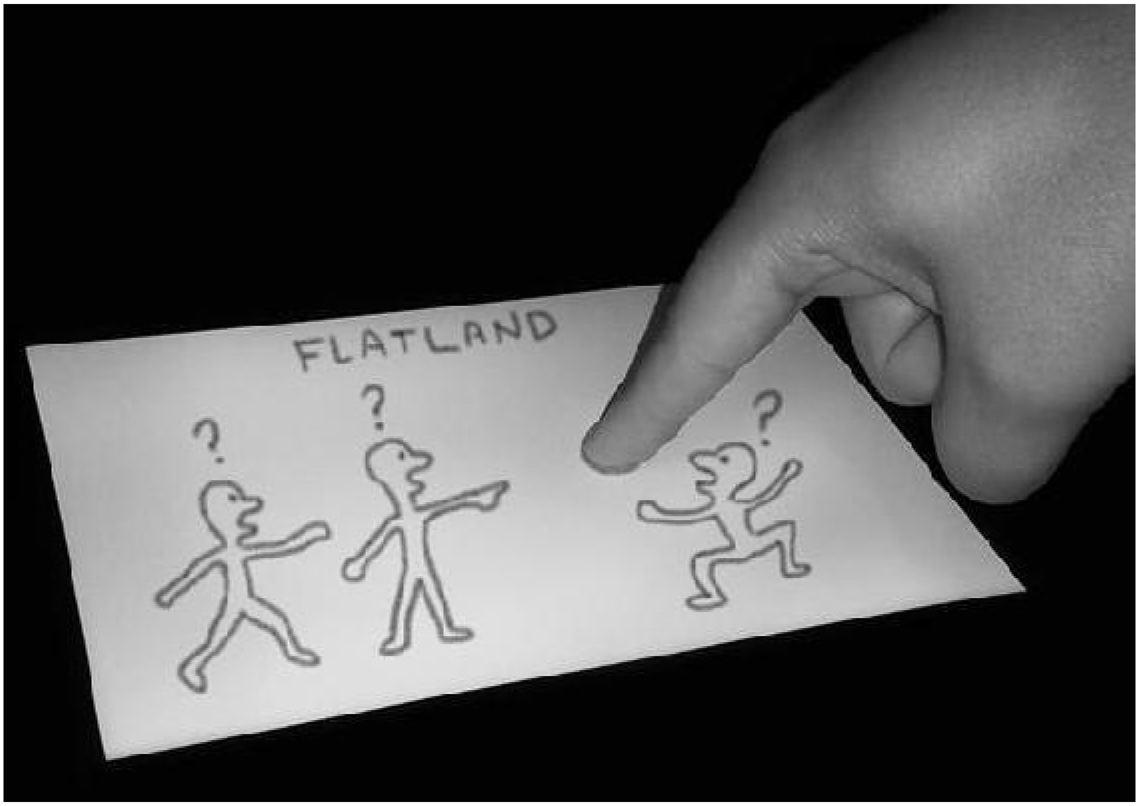
distances at faster-than-light speeds. This, of course, would seem to be theoretically

impossible. It is no wonder Einstein was not a fan of this idea of quantum entanglement.

However, by various means, it has shown to be true. Regardless of how far away they are

from each other, photons seem to be able to communicate with each other

instantaneously. To this day, how exactly this works is a complete mystery.[185]



This can be seen as an example of mankind attempting to utilize something that is not

fully understood. Quantum entanglement is still a very big mystery. According to one line of thinking, quantum entanglement could be a phenomenon operating in higher spatial dimensions beyond the three we currently inhabit.

For example, imagine a two-dimensional universe called Flatland.[186] If I (Josh), as a three-dimensional being (speaking only of spatial dimensions), were to stick my finger into Flatland, a Flatlander would only see a line appear before him and, through inspection, would be able to determine it is in the shape of a circle. However, this is just a single, two-dimensional slice of my actual finger.

A three-dimensional finger breaching two-dimensional Flatland

Now imagine if I were to stick two fingers into Flatland. The Flatlander would have no

way of knowing the two circles he now sees are parts of the same higher-dimensional object. He would assume they are similar, possibly even the same type of thing, yet altogether separate.

We can use the Flatland example to help visualize higher dimension, as explained in

depth in *Quantum Creation*. If we see two three-dimensional spheres before us, we might assume they are similar, yet separate. However, we might be mistaken, because these spheres could just be three-dimensional slices of an object composed of four spatial dimensions, or even more. This might help explain something as strange as quantum entanglement. If the entangled particles are actually just three-dimensional slices of a single higher-dimensional object, we would not have two separate particles exchanging information; we would have two slices of the same object receiving information in the same instant.[187]

If there is any validity to this view, then humanity really has no way to comprehend the

consequences of utilizing such a thing. We cannot imagine the entire higher-dimensional

structure that would make quantum entanglement possible. We would have no idea what the

consequences of trying to use entangled particles for the purposes of computing really are. It has even been admitted recently that the basic building blocks of quantum computing are "highly unstable," yet the pursuit continues.[188] We may very well be delving and probing into higher dimensions than our own.

At Princeton University, a giant leap forward in quantum computing research may have

been achieved. In July of 2015, it was announced that particles known as *Weyl fermions* had been discovered.[189] The Weyl fermion is a massless particle that has a high degree of mobility. It has

the ability to behave as both matter and antimatter inside a crystal, which means it could lead to far more efficient electronics than what we have available today.

The main particle behind modern-day electronics is the electron. The problem with

electrons, however, is as they travel within electronics, they bump into one another, causing friction and a loss of energy. Weyl fermions are far more unique in that they can move

independently of one another. This means they can provide a more stable and efficient transport of particles than electrons. Weyl fermions can also be reproduced without need of a particle accelerator such as the LHC. They were discovered inside a synthetic metallic crystal called *tantalum arsenide*.

Researchers also found out that Weyl fermions can be used to create massless electrons

that move very quickly without collisions. These collisions, known as *backscattering*, create heat and lower efficiency. This is actually why laptops get hot after running for an extended period of time.

Weyl fermions are not prone to these sorts of collisions. M. Zahid Hasan, a Princeton

professor of physics and leader of the research team that first discovered Weyl fermions, stated: It’s like they have their own GPS and steer themselves without scattering. They

will move and move only in one direction since they are either right-handed or left-

handed and never come to an end because they just tunnel through. These are very fast

electrons that behave like unidirectional light beams and can be used for new types of

quantum computing.[190]

Given this new information and discovery, there is no telling how close we might

actually be to living in a world run by quantum computers.

Dark Matter

As we discussed earlier, dark matter is one of the mysteries that might be solved at the LHC.

Many physicists believe supersymmetry will be the ultimate answer to the dark matter question.

There is another theory, however, that may prove to be a better candidate.

This idea has to do with extra dimensions. *Quantum Creation* (Josh Peck) shows how the terms "extradimensional" and "spiritual" are essentially the same thing when taken from a

biblical point of view. The example of Flatland is also used to illustrate that point. We will use some of the same ideas in this section.

As we touched on earlier, "dark matter" is a term scientists use to help explain certain

anomalous gravitational effects in the universe. The behavior of gravity in the universe is not consistent with the amount of matter in the universe. The way gravity behaves would suggest there is far more matter than what can be observed. This "invisible" matter is known as "dark matter," and is widely accepted in the scientific community.

"Dark energy," by contrast, is the term given to the mysterious energy that causes the

ever-increasing expansion of the universe. It is estimated that the known universe contains 4.9

percent ordinary matter, 26.8 percent dark matter, and 68.3 percent dark energy. This means that 95.1 percent of the make-up of the entire universe is unseen, unknown, and a complete mystery.

The really interesting thing about dark matter is it affects gravity in the known universe.

This interaction shows that something is definitely there: we just can't see it or directly observe it. It is possible dark matter is actually matter consisting of more spatial dimensions than the three we can perceive.

The interesting thing about gravity is it can traverse dimensions. Gravitons, the particles of the gravitational force, are theorized as being made of tiny, vibrating strings (according to modern M-theory) that are closed and free to roam through the bulk (hyperspace, or higher-dimensional space) between branes (the “membrane” universes theoretically rest upon). Other strings that make up particles are open and connected to branes. Of course, QFT states that gravitons are nothing more than a vibration in the gravitational field. Whichever of these is more accurate, the nature of gravitons still works out the same: they traverse dimensions.[191]

The leading theory of extra dimensions today is, if they exist, they are likely rolled up to a Planck-length size (smallest, indivisible unit of length-measurement possible) and therefore inconceivable. However, there are theoretical physicists, such as Lisa Randall, who give very good reasons why higher spatial dimensions might be quite large, or possibly even infinite.[192]

Given what the Bible has to say about spiritual existence, it isn’t a stretch to consider agreeing with Randall.[193]

If there was an object of more than three spatial dimensions affecting our universe, we

would not be able to see it, but we could detect its gravitational effects. It is possible this is what is happening with dark matter. This is speculative, of course, but many theories in this field must be speculative due to the lack of information.

An even more speculative theory is that everything in three-dimensional existence is

nothing more than three-dimensional “slices” of higher-dimensional objects. To help put this into perspective, consider placing a cube on Flatland. To a two-dimensional Flatlander, it would look as though it was only a square, however they are only seeing a two-dimensional slice of a much larger three-dimensional object. If a four-dimensional object were to breach our three dimensions of space, we would only see a three-dimensional slice due to our limited perception.

The interesting thing about a two-dimensional plane is that it actually does have a thickness; however, it is so small that it is hardly worth considering. The thickness of a two-dimensional plane is the Planck length, which is the shortest distance that is possible. The Planck length is even smaller than physical particles themselves; incredibly smaller. Consider what this would mean for a Flatlander. If a Flatlander particle physicist wanted to observe what made up two-dimensional matter, he would study the particles themselves. However, unbeknownst to the Flatlander, he would only be seeing a two-dimensional slice of a three-dimensional particle. The Flatlander would be led to the assumption that everything in existence is made of tiny circles.

The same could be said for reality in three spatial dimensions. We observe the particles

that make up reality and assume everything is made up of tiny spheres. What if we are making the same flawed assumption? What if the particles we are observing are actually three-dimensional slices of a four-dimensional object, or one of even more spatial dimensions?

Everything we see in nature may only be slices of a much larger and higher-dimensional reality.

This could help us understand Bible passages such as Hebrews 11:3, which states “things which are seen were not made of things which do appear.” Whether this idea or the idea of higher-dimensional objects creating the gravitational effects is true of reality, the result would be the same. If not

supersymmetric particles, dark matter might actually be higher-dimensional matter interacting with our universe.

Dark Energy

Possibly even stranger than dark matter is dark energy. Everything in the universe is moving away from everything else in the universe at an exponential rate. The longer things move away, the faster away they move. How exactly objects pick up speed and where the energy is coming from is a complete mystery.

One idea is that space itself has an expansion property. Every point in space expands to create more points, then those points expand to create even more; so on and so forth. If this is true, this would explain why things travel faster and faster. The more space between an object, the more expansions would be possible. Of course, this hasn't been directly tested or observed, so dark energy still remains a mystery.

Another idea that might hold some biblical precedence involves a type of reverse-

entropy. Normally, when things move, they decrease energy and speed over time. This is a result of entropy (the tendency of things to degrade, slow down, lose energy, and become static).

Without some external force keeping the movement going, the object will eventually slow down and stop. Dark energy, however, seems to present an opposite effect. Things seem to gain

energy, traveling faster and faster. If there is not some unknown force causing space itself to expand, it might be an effect we are seeing in reverse.

Everything we can observe in physical reality is traveling down what is known as the

arrow of time. According to physicists, there is no real reason things have to be this way; they just are.[194] Physically speaking, there is no real reason

reality shouldn't be traveling the opposite way along the arrow of time. Contrary to what we might originally think, if something were to travel the opposite way on the arrow of time (unless it's something obvious, like a person talking or a song playing), it might be very difficult to tell. Imagine if we were to observe a normal, stationary particle. If the particle wasn't moving, how would we know which way it was traveling along the arrow of time? If it were traveling backward in time yet remained stationary in space, it would still look the same to us. The only way we would be able to tell would be to observe its entropy.

If we were able to deduce that the particle doesn't decay normally by spitting out one or two lighter particles, but instead came into being by two lighter particles coming together to create the particle, that could be evidence of a type of reverse-entropy. The same could be said for something a bit more familiar. If you had a baseball sitting on your desk that was traveling backward along the arrow of time, how would you know? If it remains stationary, the only way to tell would be to see if the baseball is degrading with time or looking newer and newer. If the baseball is degrading, entropy is intact and it is traveling through time as it normally should.

However, if it is newer every time you observe it, you might have evidence to show it is

traveling backward in time. Entropy would be reversed.

Of course, the baseball is just a thought exercise. However, it is possible something like this is actually happening in the universe. With dark energy, we might be seeing a type of reverse entropy. It is possible that the observed effect is actually traveling the opposite way down the arrow of time, caused by something yet future to us. Revelation 10:5–7 states:

And the angel which I saw stand upon the sea and upon the earth lifted up his

hand to heaven,

And sware by him that liveth for ever and ever, who created heaven, and the

things that therein are, and the earth, and the things that therein are, and the sea, and the things which are therein, that there should be time no longer:

But in the days of the voice of the seventh angel, when he shall begin to sound,

the mystery of God should be finished, as he hath declared to his servants the prophets.

The timeline we are living in certainly had a beginning and, according to the above

passage, will have an end. Since the beginning required a lot of energy directly from God that

can still be measured today in various ways (such as cosmic background radiation), it would seem the end would require just as much, if not more, energy.

However, if there is “time no longer,” where would that energy go? Hypothetically

speaking, the energy would have no other option but to travel down the arrow of time in reverse.

This is comparable to shooting hose water down a track at a wall. Once the water hits the wall, it will start flowing backward through the new water still coming in. The expansion of the universe might actually be a contraction in reverse set in motion by something cataclysmic in the future: specifically, at the end of the timeline. This contraction may go all the way back to the beginning of creation, thereby closing the “loop” of time.[195] It is certainly an interesting possibility to consider.

The Pentaquark Example of New Particles

July of 2015 marked an important discovery at the LHC and serves as an excellent example of how new particles can be discovered at any time. This new discovery was of a particle that was named the “pentaquark.” At its

heart, a pentaquark is a new configuration of already-known particles: quarks. Quarks usually bind together to create particles such as protons (two up quarks plus one down quark) and neutrons (two down quarks plus one up quark), which in turn makes up the nucleus of an atom. Instead of being a collection of three quarks, however, the pentaquark is a collection of five.

This discovery left many in the scientific community celebrating. Yet it left others,

specifically in the fringe of Christianity, wondering what this discovery might mean on a

spiritual level. There were those who presented similarities between the configuration of the pentaquark and the pentagram of occultism. While interesting points were made in these regards,

the discovery of the pentaquark can serve as a good example of how, if at all, we may want to interpret the spiritual significance of future particle discoveries.

In my opinion, considering the other end of this thinking/searching for spiritual

significance, what has been discovered is a new building block of God's creation. Ultimately, this particle is something God has created to establish physical reality as we know it. While the enemy might try to usurp it for nefarious purposes, this discovery would not have happened had God not allowed it for some ultimate purpose.

I believe if we can look at the pentagram aspect of this discovery to try and deduce the

motives of the enemy, we can also look at the other end and see if there is an overall meaning from the Creator Himself. According to E. W. Bullinger, the number five in the Bible signifies the grace of God.[196] There is so much that could be unpacked, but a basic understanding is enough for our purposes here. Interestingly enough, Bullinger also makes note of how the

number four represents creation. He then states:

But four plus one (4+1=5) is significant of Divine strength added to and made

perfect in that weakness; of omnipotence combined with the impotence of earth; of

Divine favour uninfluenced and invincible.[197]

This discovery of the pentaquark is, quite literally, the discovery of a previously

unknown piece of creation. What we have is 4 (creation) plus 1 (YHWH, or God the Father) to equal 5 (God's grace) in the number of quarks. So how are we to interpret this?

If there is any interpretation to be had, my belief is this may signify the fact that God’s grace ultimately, to those who accept it, will conquer and prevail over all. The enemy may try and usurp God’s creation to try and send messages to those watching for such things, but this is

no match for the grace of God. We, as Christians, should be well aware of what the grace of God means. Ephesians 2:8–9 states:

For by grace you have been saved through faith. And this is not your own doing;

it is the gift of God, not a result of works, so that no one may boast.

The enemy only has various works. We have access to something greater than that. To

any who want it, God has offered salvation by grace through faith. The enemy might or might not be trying to signify something with the pentaquark discovery but, either way, God still prevails in the end.

We can use this methodology and way of thinking for any future discovery of new and

exotic particles. It is all ultimately God’s creation. Given that, we should keep watching, remain aware, prepare ourselves, but never fall into fear. Regardless what the enemy throws our way, if we have accepted Jesus, we are saved already.

Chapter 10

Black Holes and Extra Dimensions

Gravity's Rainbow

There is a relatively new theory that may make a big impact in the future. It is known as

"Gravity's Rainbow" or "Rainbow Gravity Theory." What this theory basically states is that gravity affects light differently depending on the wavelength (wavelength determines the color of light we see).[198] This effect is comparable to light that is shown through a prism. The prism affects the various wavelengths differently and a rainbow emerges. In the case of gravity, if this effect exists, it would be very minimal to objects such as the earth or moon, but would be noticeable with black holes. In fact, it has been theorized that if you were able to get close enough to a black hole to see light cross the event horizon, you would not see white light. You would instead see a rainbow encircling the event horizon of the black hole.

What makes this theory important for us to keep an eye on isn't necessarily the idea

itself, but the implications. Rainbow gravity theory is an attempt to combine the theory of general relativity with quantum mechanics.[199] If this rainbow gravity is ever proven true, it would certainly be big news, however what the theory predicts might be more interesting to the general public than the theory itself. According to rainbow gravity, the universe did not begin

with the Big Bang. In fact, the universe had no beginning at all. Rainbow gravity predicts the universe is infinitely old and physicists at the LHC are excited to try and prove it.[200]

Of course, the idea of the universe being infinitely old runs in direct opposition to the

biblical creation account in the book of Genesis, as well as other places.[201] If rainbow gravity is proven scientifically true, Christians will have a choice to make. Either we can reject the science altogether or we can accept the science and reject the interpretation. The former might be the knee-jerk reaction of most, but the latter is the more sensible choice.

If we can understand the science behind this idea, we will have a better foothold to

provide an answer if and when it is announced as scientific truth. This is a method we can learn to aid in all past, present, and future discoveries that seem to conflict with the Bible. Throughout the rest of this chapter, we are going to look at how physicists are trying to determine if rainbow gravity is true. We are also going to explore another interpretation of the data they may collect in the future.

High and Low Energy

It is believed that if rainbow gravity theory is correct, the early universe was much different than the current thinking states. Given the vast amount of energy that would be required for rainbow gravity to be real, it would mean that if you were to retrace time backward, the universe would keep getting denser and denser, reaching closer to infinite density but never quite getting there.[202] Thus, time in the universe would stretch backward infinitely and there would be no beginning.

The basic way physicists are trying to test rainbow gravity theory is with use of the LHC

at CERN. One of the predictions of this theory states that miniature black holes should be able to

be created at a certain energy level that is much lower than would be expected otherwise.

Another result of this is it would prove the existence of extra dimensions of space. Dr. Mir Faizal has said:

We have calculated the energy at which we expect to detect these mini black

holes in gravity's rainbow [a new theory]. If we do detect mini black holes at this energy, then we will know that both gravity's rainbow and extra dimensions are correct.[203]

High up on the LHC’s to-do list is to determine if miniature black holes can be created to prove the existence of extra dimensions and gravity’s rainbow.

Our first instinct would probably be to think this is a very bad idea. Of course, there is very good reason to think that. Black holes, by their very nature, are extremely dangerous and mysterious things. As we looked at earlier, physicists have admitted there is risk, but the risk is considered minimal and worth pursuing…though not everyone is that confident.

During a presentation, physicist Sean Carroll was asked about the potential hazards of the LHC, specifically with black holes. Carroll stated that the same people who came up with the destruction scenarios are the ones who inspected everything and deemed the LHC to be safe. He also stated the same math that predicts black holes could be created at the LHC also states the black hole would become unstable and snap closed nearly instantly.

Carroll went on to say that even if a miniature black hole were to become stable and fall

through the LHC to the center of the earth, the mathematics show that it would take far longer than the life expectancy of the universe for anything noticeable to occur from it.[204] In other words, it isn’t anything to worry about. That is, of course, if you have the same level of confidence in the mathematical predictions as physicists do.

It seems the more pressing issue could be deciding what we are going to believe if and when the discovery is announced. If we turn on the news one day and see that physicists have proven the theory of gravity’s rainbow, which predicts the universe had no beginning and is infinitely old, what kind of answer are we going to give? For people with serious questions and

whose faith might be shaken due to this news, something more than passing the whole thing off as nonsense will be required.

There are at least a couple of things we can point out. We could first recognize that the

idea of the universe being infinitely old makes no biblical sense. Apart from that, it is also hard to grasp scientifically and even logically.

If the universe is infinitely old, it would be in a state of maximum entropy and perfect

equilibrium. Whatever the universe is currently moving and expanding towards, that would have already happened. Everything would be evenly spaced out, of equal temperature, and life as we currently know and understand it would be impossible. Space would not be expanding or

contracting; that would have already been completed. The universe would be "static," meaning everything would be uniform.[205] Before the discovery of the expansion of the universe, Einstein once believed in a temporally infinite but spatially finite universe. After Edwin Hubble had discovered the universe is expanding, however, Einstein recanted this belief and called it his

"biggest blunder."[206] Clearly, we do not live in a temporally nor spatially infinite universe.

There is another problem we could explore. That is the problem of infinity existing at all in physical existence. If we think about what the word "infinite" actually means and apply it logically, we can understand how impossible a notion it is within the bounds of our current reality. Of course, infinity is perfectly possible when it comes to God and biblical descriptions of eternity. However, from a purely physical standpoint, infinity is impossible.

Universal timeline with God outside of time in eternity

An easy way to understand why this must be so is to first assume that the universe is

infinite, then follow that line of logic. If the universe is infinite and we are a part of the universe, what percentage of the universe are we occupying? This could go for both space and time. If the universe is infinitely old, what percentage of time is the age of the earth, or my lifetime, or today? No matter what percentage you try to put there, the answer will always come out to

infinity. What is 10 percent of infinity? Infinity. What is 0.00001 percent of infinity? Still infinity. Infinity is a notion where 1 percent and 100 percent are equal. Clearly, our solar system is not of infinite size or age. Earth is not of infinite size or age. We ourselves are most assuredly not of infinite size or age. Therefore, if infinity is to exist, it must exist somewhere other than the space we are occupying.

Some physicists and other scientists might propose an idea that time is in a traditional

loop to explain how time can be infinite yet still exist in a way we can experience. Of course, this would get into all sorts of philosophical issues such as reincarnation, past lives, and other unbiblical beliefs. However, if it turns out that the expansion of the universe is not due to some

unknown property of space, it might occur because of what we discussed earlier in the "Dark Energy" section.

The universe might be experiencing time in both directions simultaneously. We could

think of time as a track with a wall on each end. On the track, time flows in both directions.

Mainly, it flows in the way we experience. However, due to a cataclysmic event in the future that causes the end of time, the effect would have nowhere left to go but the opposite direction.[207]

That effect might be seen today as the expansion of the universe. However, as stated earlier, this would be a type of false expansion. In reality, it is a contraction that will come to its singularity at the very beginning instant of creation.

If true, this idea would have amazing implications. With God being outside of time, this

might be the mechanism He chose to create temporal reality. This might also help explain further the fact that He knows the end from the beginning.[208] This can also help us understand how God is, Himself, the literal beginning and the end, instead of merely *causing* the beginning and end.[209] God is both of those two walls at either end of the track of time. It is He who contains the flow of time as we experience it today.

Miniature Black Holes to Extra Dimensions

There is also the matter of extra dimensions to consider in the creation of black holes. These black holes could very well end up being gateways to higher dimensions. What might come

through those gateways is a question we will explore later in chapter 11, however it certainly applies here.

Physicists by and large are working under the assumption that there is no God, no devil,

no true evil (at least not in the biblical sense), and nothing to worry about with these types of

experiments. That leads many to wonder what happens if they are wrong. What if intelligences actually do exist in higher dimensions? If we open a door, would that be considered as an

invitation for those intelligences to come through? Could physicists open a gateway and send a message through and, if so, what would they do if they received a message back?

Chapter 11

Quantum Consciousness

Physics and Consciousness

Most physicists admit that, while they know much about the quantum world pertaining to our day-to-day lives, consciousness has eluded them. The discovery of the Higgs boson has, in a sense, completed the Standard Model of particle physics, at least to the degree of our current everyday experiences. Science has unraveled the mysteries surrounding the subatomic existence that makes up physicality in our minuscule section of the universe. That is, however, except for the mystery of self-awareness. Physics has yet to answer the question of consciousness from a quantum perspective.

Physicists such as Sean Carroll will admit that, when it comes to the world around us and

on a quantum level, they pretty much know what comprises existence by way of the Standard

Model.[210] Of course, this does not apply for unexplained things out in the universe, such as dark matter, dark energy, black holes, and some of the other anomalous things we have explored

throughout this book. The Standard Model only applies to the world we live in and what we deal with in regular day to day life. This leaves the question of consciousness open to various hypotheses.

Electromagnetism and Consciousness

Consciousness, the state of being self-aware, is something physicists have not come into

agreement on concerning an explanatory theory. That is not to say there are not theories out there; there are plenty. There have been theories presented that state consciousness is part of the electromagnetic field, such as CEMI theory.[211] This theory states that a disturbance in the surrounding electromagnetic field, brought on by the firing of neurons in the brain, is responsible for consciousness.[212] Scientists have largely dismissed the idea of the electromagnetic field producing or having anything to do with consciousness, however there is another theory that may provide a better answer.

Quantum Brain Dynamics

Quantum Brain Dynamics (QBD) is a theory stating there is a new quantum field responsible for consciousness.[213] This hypothetical field is known as the "cortical field." The quanta (elementary particles) of this field are known as "corticons." According to Wikipedia:

This cortical field is postulated to interact with quantum coherent waves

generated by the biomolecules in neurons, which are suggested to propagate along the

neuronal network. The idea of quantum coherent waves in the neuronal network derives

from Frohlich. He viewed these waves as a means by which order could be maintained in

living systems, and argued that the neuronal network could support long-range

correlation of dipoles. This theory suggests that the cortical field not only interacts with the neuronal network, but also to a good extent controls it.[214]

If this turns out to be true, it would mean our personal consciousness exists by means of

an interaction with a quantum field, or due to an interaction with quantum particles. In fact, the theory suggests the possibility that the cortical field not only produces consciousness by means

of interacting with neurons, but actually *controls* the neurons. Of course, this could lead to any number of follow-up questions. Is consciousness truly *real* if a field can control it to some extent? Could physicists learn to manipulate the cortical field, thereby manipulating

consciousness as a whole? Could this pave the way for artificial intelligence and certain goals within the transhumanist movement?

Due to the rules of QFT, if the right amount of energy is applied to the cortical field, it could produce corticons. Conceivably, this could be done at particle accelerators such as the LHC at CERN. This leads one to wonder, if the cortical field is real, what types of applications could come from its discovery?

Potential Applications

The possible applications from such a discovery as corticons is extremely far reaching. The only true limit would be the imaginations of those who have control over the information. It is quite obvious that unfolding the mysteries of consciousness would have enormous implications on

society, culture, and the world in general.

There are scientists today who are trying to tackle the mystery of consciousness.[215]

Given this could be tested with our current technology, it causes one to wonder what the future might look like if any of these quantum consciousness theories turn out to be true. If corticons are discovered, it would be proof of the cortical field, just as the discovery of the Higgs boson was proof of the Higgs field.

There are enormous technological implications to a discovery such as corticons. The

solution to how to make artificial intelligence a reality would be realized. This also would provide a relatively inexpensive way to do it with limitless resources. All one would need to

know is how to manipulate the cortical field and/or corticons themselves to keep them active inside a computer or other technological device. How much easier would it be to create a real consciousness out of thin air by manipulating nature rather than spending an unimaginable

amount of money to research and develop a computer code and software that can handle an

artificial intelligence? If corticons are found, it would be far easier and more cost effective to apply them to a machine, or to build a machine that can manipulate the cortical field, thereby causing that machine to be conscious, aware, and even technically alive.

There is a horrifying possibility that came up in one of my (Josh Peck) interviews on the

popular internet radio show, *The Hagmann and Hagmann Report*. [216] Early in the show, I was asked a question about the possibility of technologically implanting a new consciousness into a person. After giving it some thought, I decided to wait until I had explained QFT and QBD

before giving a full answer. After I had explained the information contained within this chapter, I stated:

If [the existence of the cortical field] is true, it would have huge prophetic

implications surrounding it…if they were able to discover [corticons], they could change

how you interact in the cortical field. They could change who you are…effectively, it

would kill your consciousness; it would probably kill you…they could replace your

consciousness with another consciousness that they either create in a lab or is from

somebody else…talk about how easy it would be to have a one-world government if they

developed something like that. That’s one of many potential outcomes that could come

out of things they’re doing at CERN.

Of course, it probably goes without saying that there is much more to the scenario I presented to hosts Doug and Joe Hagmann. To get the full scope and context of the conversation, I highly suggest checking out *The Coming Technocalypse* mp3 audio series.

As it stands today, there is no direct evidence that this type of technological

consciousness replacement is going on now or will in the near future. However, it still is a possibility that surrounds a very mysterious feature of nature: consciousness. If science is ever able to crack what consciousness actually is in a physical sense, we might very well have to face a future where outcomes such as what I described on *The Hagmann and Hagmann Report* are realized. For now, all we can do is remain as informed as possible and prepare for the

possibilities.

Aside from what world governments might do with the potential discovery of the

corticons, there are other applications as well. There is a great potential within the transhumanist crowd if corticons are discovered. The discovery of corticons would be the answer to the

question of how to technologically transfer a person's consciousness into a machine, thereby enabling that person to live virtually forever. This might

very well be the discovery that ushers in the proposed singularity of 2045 (the date some believe technological knowledge and

advancement will go beyond our current physical forms), if not even sooner.[217]

There is no real way to tell how far the effects of such a discovery would reach. What is

presented in this section is only a few possible applications. If science discovers a way to explain, manipulate, and even create consciousness on a quantum level, surely our world and civilization will undergo a rapid and intense change that few will be ready to deal with or even understand. This is why we must start thinking about these things now so we can be prepared in the future.

Chapter 12

Higgs Field Doomsday

Living on the Knife's Edge

As we discussed earlier, the Higgs field has a nonzero rest value. This means, in empty space, the Higgs field still has quite a bit of energy compared to other quantum fields that are set to zero. In fact, it would take more energy for the Higgs field to be at zero. The question then comes up, is it possible for the Higgs field to attain energy? If so, what would that mean for the universe?

Joseph Lykken is a theoretical physicist and the deputy director and chief research officer of Fermilab. He is also a collaborator of the CMS experiment at CERN's LHC. In a fascinating and enlightening seminar for the SETI Institute Talks Series, Joseph Lykken explained the

significance of the Higgs field as well as what could possibly destroy the universe in the future.[218]

Lykken pointed out that one of the most interesting and important things about the Higgs

field is its nonzero nature. It actually takes less energy for the Higgs field to be where it is at now

than it would if it were at zero. This sounds impossible, of course, but that is one of the fascinating things about God's design. Many times impossibility is the norm.

The energy of the Higgs field is set at a very interesting value. Speaking in terms of

energetic favorability, the Higgs field actually might "prefer" a higher energy state. The current value of the Higgs field is at a place where it

would take more energy to set it to zero, yet it could be more energetically favorable for it to have an even higher energy. The only thing stopping the Higgs field from energizing even more is an energetic cost getting in the way.

We could think of this in terms of a small hill and a cliff. Imagine a ball on a flat field of grass. Right in front of the ball is a small hill only a couple of inches high. On the other side of the hill, however, is a cliff that goes down several hundred feet. The ball is at rest at the base of the small hill so, at the moment, there is no danger of the ball plummeting down the cliff.

However, if there was a sudden gust of wind or some other natural event to add a small amount of energy to the ball, it could climb the hill, then free-fall down the cliff, all the while gaining speed and energy.

The energy of the Higgs field is like the ball and its potential energy is like the hill and cliff. Right now, the energy of the Higgs field is at the base of the hill; there is no danger. At the point between the two extremes of zero and maximum energy, the conditions are just right for the Higgs field to allow the universe to exist as it does today. However, is it possible that someday a "gust of wind" could send the Higgs field up the hill and careening over the edge of the cliff?

Quantum Fluctuations

We have already discussed what quantum fluctuations are and what they cause. A quantum fluctuation is slight bump or wave in a quantum field that has the potential to become a particle.

Quantum fluctuations happen all the time in every field; otherwise, reality would not be able to exist and physicality would be meaningless. In those regards, quantum fluctuations are a good thing.

However, as Lykken pointed out during his seminar, there is a type of quantum

fluctuation that may not be as beneficial to existence. In quantum mechanics, a hill is not enough to prevent something from happening. In the

words of Lykken:

Eventually there will be some kind of unlucky quantum fluctuation that will cause

us to [go through] a process called quantum tunneling that will get us from the false

vacuum that we're living in now, apparently, to the real vacuum the universe wants to be

in.

Right now, the universe is not a true vacuum. There is a familiar saying in physics and

cosmology that says "empty space isn't empty." The way that phrase is worded causes it to be misleading. Perhaps a more accurate thing to say would be "empty space isn't real." What we call "empty space" in the universe is not truly empty. The term "empty space" is a bit of a misnomer. Empty space could be called "sort-of-empty space" or "less-full space" or something to that effect. What's known as empty space is still full of fields, virtual particles (particles that rapidly pop into and out of existence), dark energy, and possibly other things that haven't been discovered yet. The only true empty space might exist in a black hole, but even that has yet to be determined. The "vacuum" of space is actually more of a false vacuum, which is the idea Lykken was proposing. The universe might find it energetically preferable to be in a true vacuum, but the Higgs field, with its current energy value, is preventing that from happening.

Apparently, it would not take much for the Higgs field to energize and careen off the cliff. In fact, according to quantum physics, it is expected to happen someday. In his seminar, Lykken demonstrated how the probability of it happening in our lifetime is incredibly low. In fact, statistically speaking, it isn't expected to happen for another 10100 years.[219] However, this is only statistics. Though incredibly unlikely, Lykken admits this could have already happened and we may experience the effects at any

time. At least for now, in this delicate balancing act between the Higgs field and the rest of the universe, physical existence remains possible.

If the Higgs Field Energizes

What would it look like if the Higgs field were to suddenly energize? It would not be all at once, as Joseph Lykken points out. At some point in the universe, a quantum fluctuation would occur causing the Higgs field to energize, but only at that localized point in space to begin with. A bubble of high energy would be created in the Higgs field and expand at the speed of light all throughout the universe. In fact, this bubble could have already been formed somewhere out in the far reaches of the universe and we would have no way of seeing it coming.

What this would mean for us is quite catastrophic. In his seminar, Lykken presented a

slide that stated:

If this Standard Model calculation is correct, eventually fireballs of doom will

form spontaneously and expand to destroy the universe.

In a way, this almost sounds biblical. Second Peter 3:10 states:

But the day of the Lord will come as a thief in the night; in the which the heavens

shall pass away with a great noise, and the elements shall melt with fervent heat, the earth also and the works that are therein shall be burned up.

Repeating the same idea with a bit more information, 2 Peter 3:12 states: Looking for and hasting unto the coming of the day of God, wherein the heavens

being on fire shall be dissolved, and the elements shall melt with fervent heat?

The word “heavens” in both of these verses is translated from the Greek word *ouranos*, which can be understood as “the universe, the world.”[220] The word “elements” comes from the Greek word *stoicheion* and can mean “any first thing, from which the others belonging to some series or composite whole take their rise, an element, first principal.” For example, “the heavenly bodies, either as parts of the heavens or (as others think) because in them the elements of man, life and destiny were supposed to reside” and “the elements from which all things have come, the material causes of the universe.”[221]

What we may have in these two verses is a representation of the universal macro scale

(heavens) and the quantum micro scale (elements). The “heavens” seems to be referring to the universe as a whole, while the “elements” may be referring to elementary particles, given the context of the verse and the Greek definition of *stoicheion*. Could this mean the Higgs field energizing will be the mechanism the Lord will use to cause the heavens to pass away and the earth to burn up?

It is certainly possible Lykken’s Higgs field doomsday was first predicted nearly two

thousand years ago. If so, is this something we need to fear? The short answer is no. Consider 2

Peter 3:13, which states:

Nevertheless we, according to his promise, look for new heavens and a new earth,

wherein dwelleth righteousness.

If we are secure in Jesus, whatever mechanism God chooses to use to bring in the new heavens and earth, we need not fear it. We will likely have our new bodies by that time that can withstand such an event. If God uses the energy of the Higgs field to bring in the “true vacuum”

of the universe, this would certainly be an environment that life as we know it could not exist.

However, we look forward to an eternal life that will be far different than the life we know today.

When asked what the Higgs field energy increase would be like for us when we are

finally taken over by the bubble, Lykken replied that basically, every particle in your body would succumb to the effects of the super-energized Higgs field. As it is now, the Higgs field

interacting with particles is what determines their mass. With a Higgs field of catastrophically higher energy, particles would interact in a much more powerful way. Every particle in your body, as well as every particle throughout the universe, would gain so much mass they would essentially collapse into a black hole.

Every particle creating its own black hole would certainly be catastrophic. Black holes

would combine into bigger black holes until the entire universe would consist of the "true vacuum" that it prefers. Even time itself would become irrelevant at this point.[222] In a very real sense, as the Bible predicts and as we looked at earlier, there would be "time no longer." Perhaps this is the massive amount of energy at the edge of time we speculated about earlier in the section concerning dark energy.

The process to bring about the true vacuum would completely undo physical reality. It

would be like starting out fresh on a clean slate. Anything made of normal matter would never be able to survive and exist after such an ordeal. However, in a new, heavenly, and even

extradimensional body, eternal existence would be no problem at all. That is one of the many promises of God we have to look forward to as Christians.

Chapter 13

The Coming Technocalypse

A Most Unique Particle

For many reasons already explored in this book, the graviton is possibly one of the strangest theoretical particles ever hypothesized. Gravitons have never been directly observed, however, physicists are confident in their existence due to the presence of the gravitational field. It is possible a soon discovery might take place by means of particle colliders, such as the LHC at CERN. Gravitons are the particles responsible for gravity. Gravity in itself is still a mystery in many respects, but due to scientific advancements, the world may not be far off from the holy grail of physics: definitive proof the graviton actually exists and the means to study its properties.

The Graviton Communication System

As we discussed earlier, what makes the graviton especially interesting is its apparent ability to flow free between dimensions. Among other potential discoveries, the graviton is at the top of the LHC's to-do list. The idea is not always to look for the graviton itself, but to look for a gap where particles should be after a collision. The two particle detectors of the LHC (CMS and ATLAS) are able to show us the aftermath of a particle collision. As in any collision, debris is

thrown out and distributed fairly evenly. If, however, the detector shows a gap where debris (or new and exotic particles) should be, that could be evidence they have escaped into a higher dimension.

There is an idea that gravitons can be used as a way to communicate with beings of

higher dimensions. This may sound like the stuff of popular science fiction, but physicists today are seriously considering this possibility.[223] If gravitons are discovered and used as a way to communicate with beings of

higher dimensions or parallel universes, this might be what tells the world that we are not alone. While many are waiting for a type of disclosure event in which other-worldly beings present themselves and their spacecraft to humanity, we might be surprised to find these beings presenting themselves in a different way. This may begin with an established communication via gravitons.

Gravity Waves Discovered

In September of 2015, for the first time ever, gravitational waves were detected. Before that time, gravity waves, gravitons, and the gravitational quantum field have been largely speculative and theoretical. Gravitons had never been directly observed. The effects of the gravitational field are seen every day, of course (when you drop a ball, it falls), but without actually observing the waves/particles of gravity itself, there is a limit to what can be learned and accomplished. Now that waves of gravity have actually been detected, there's no telling what the ramifications will be.

The detection was achieved by the Laser Interferometer Gravitational-Wave Observatory

(LIGO). The actual waves were created by the merging of two black holes: one the mass of

twenty-nine suns and the other the mass of thirty-six suns. Each black hole is estimated as being roughly thirty miles in diameter.[224] Gravity waves are so incredibly weak that it takes an

extremely sensitive detector like LIGO to be able to detect them. LIGO can measure distortions as small as one-thousandth the size of a proton. The gravity waves LIGO detected lasted only one-fifth of a second. Even more amazing, the detection happened at greater than a five-sigma standard of proof.

On one hand, this discovery is incredibly exciting. After all, an aspect of God’s creation has been detected. Another piece of His grand design can now be understood a bit better.

However, this could turn to be troubling news if/when mankind decides to use this knowledge for dangerous and potentially disastrous goals.

What will this discovery bring? David Reitze, executive director of LIGO, has said,

"What's really exciting is what comes next, I think we're opening a window on the universe—a window of gravitational wave astronomy. "[225] Kip Thorne, Caltech's Richard P. Feynman Professor of Theoretical Physics, emeritus, is also quoted as saying something nearly identical: that this discovery is opening a new window on the universe.[226] Gravitational wave astronomy and new branches of quantum physics are interesting windows, of course, but what of some other windows that might be opened?

This brings us back to the goal of certain physicists to develop a gravitational

communication system. There are steps toward that goal that must be taken, of course. First would be the confirmed discovery of gravitational waves and/or gravitons themselves. Next

would be learning to repeat the detection in a lab by creating gravitons or gravity waves. They would do this by putting Einstein's general theory to the test directly and experimentally. Once that is accomplished, there will be enough information to go on to learn how to manipulate the gravitons themselves.

Interestingly enough, this detection of gravitational waves occurred in September of 2015, but wasn't officially announced until six months later on February 11, 2016. This leads us to wonder what else has been accomplished and not yet announced. Could these discoveries spur on the opening of the abyss in Revelation chapter 9? Only time will tell, but by the looks of it, we are not too far off from knowing for sure.

Army of Apocalyptic Locusts

This leads us to wonder what the world might look like after interdimensional communication is established. We may have the answer in

the prophetic book of Revelation. From the prophet

John, Revelation 9:1–3 states:

And the fifth angel sounded, and I saw a star fall from heaven unto the earth: and

to him was given the key of the bottomless pit.

And he opened the bottomless pit; and there arose a smoke out of the pit, as the

smoke of a great furnace; and the sun and the air were darkened by reason of the smoke

of the pit.

And there came out of the smoke locusts upon the earth: and unto them was given

power, as the scorpions of the earth have power.

The first thing to notice is that this occurs when the fifth angel sounds. As we briefly saw earlier in this book, there are times when numbers in the Bible can mean different things. In *Cherubim Chariots*, I (Josh Peck) explore the possibility of the number of cherubim faces in Ezekiel’s vision representing spatial dimensions. If we include time, it is correct to say that we are four-dimensional beings (three dimensions of space and one of time). If we follow that logic, we might have a reference to a being of an extra dimension in the fifth trumpet of Revelation

(four of space and one of time, equaling five). *Quantum Creation* (Josh Peck) theorizes that when the rebellious angels fell from heaven, they may have fallen to what we would call the fourth spatial dimension.

The angel sounding the trumpet is likely not a fallen angel, but instead might be signaling that a fallen being is about to come into the picture. The rest of the first verse of Revelation 9

states, “and I saw a star fall from heaven unto the earth: and to him was given the key of the bottomless pit.”

This is no ordinary star. According to our modern vernacular, any star that would fall on

the earth would utterly destroy it. There does seem to be a connection between stars and angels and, at times, the word “star” can actually represent an angel. We see this alluded to in

Revelation 1:20, which states:

The mystery of the seven stars which thou sawest in my right hand, and the seven

golden candlesticks. The seven stars are the angels of the seven churches: and the seven

candlesticks which thou sawest are the seven churches.

We can also see the star is a being of some sort, because of the words, “unto him was

given the key.” This star being referred to with the pronoun “him” shows that this is a person of some sort. This could be a person, or being, of four spatial dimensions rather than three. This is most likely referring to a fallen angel.

Verse 2 tells us that the angel opened the bottomless pit with the key. The word “key”

comes from the Greek word *kleis* and can be used as a metaphor for authority.[227] In a sense, this fallen angel was given permission to open the bottomless pit. We also learn in Revelation 1:18

that Jesus Christ Himself held the keys of death and hell, so most likely it was Jesus who granted this authority.

We may ask why Jesus would give permission for a fallen angel to open the bottomless

pit. We find the answer in chapter 2, verses 2–11 in the book of Joel:

A day of darkness and of gloominess, a day of clouds and of thick darkness, as the

morning spread upon the mountains: a great people and a strong; there hath not been ever

the like, neither shall be any more after it, even to the years of many generations.

A fire devoureth before them; and behind them a flame burneth: the land is as the

garden of Eden before them, and behind them a desolate wilderness; yea, and nothing

shall escape them.

The appearance of them is as the appearance of horses; and as horsemen, so shall

they run.

Like the noise of chariots on the tops of mountains shall they leap, like the noise

of a flame of fire that devoureth the stubble, as a strong people set in battle array.

Before their face the people shall be much pained: all faces shall gather blackness.

They shall run like mighty men; they shall climb the wall like men of war; and

they shall march every one on his ways, and they shall not break their ranks:

Neither shall one thrust another; they shall walk every one in his path: and when

they fall upon the sword, they shall not be wounded.

They shall run to and fro in the city; they shall run upon the wall, they shall climb

up upon the houses; they shall enter in at the windows like a thief.

The earth shall quake before them; the heavens shall tremble: the sun and the moon shall be dark, and the stars shall withdraw their shining:

And the Lord shall utter his voice before his army: for his camp is very great: for

he is strong that executeth his word: for the day of the Lord is great and very terrible; and who can abide it?

We can learn many truths in this passage, but for our purposes here, we only need to note

a couple of things. First, as we will see later in further detail, notice this army is described in many of the same ways as the locust army of Revelation 9 (and is probably the very same). We also read in verse 8 of their immortality (“when they fall upon the sword, they shall not be wounded”), showing these are likely angelic in nature.

Given the description of the circumstances surrounding these beings (sun, moon, and

stars darkened, clouds of thick darkness, etc.), they seem to be the very same locust-beings from Revelation 9. But also notice that Joel 2:11 says this is the Lord’s army. How can this be?

There are times in the Bible when God will use the enemy for His own purposes. After

all, He is ultimately in control of these things anyway; He can use them as He sees fit. For example, in the book of Exodus, we read that God hardened Pharaoh's heart (Exodus 9:12). We also read later in Revelation chapter 9:

And the sixth angel sounded, and I heard a voice from the four horns of the

golden altar which is before God,

Saying to the sixth angel which had the trumpet, Loose the four angels which are

bound in the great river Euphrates.

And the four angels were loosed, which were prepared for an hour, and a day, and a month, and a year, for to slay the third part of men.

As we can see, there are times the Lord will use the enemy to fulfill His own purposes,

usually in the way of judgment. The locust army is no different.

Before they are unleashed into our world, the gravitational communication aspect

becomes more obvious as we consider these prophecies. It is possible that the LHC at CERN will detect evidence of gravitons which, in turn, could lead to a communication device to higher-dimensional entities. After all, what particle but the graviton could best represent fallen angels?

We even have reference to falling, an effect caused by gravity, in the description of the star/angel that opens the bottomless pit.

Abaddon and the Ezekiel Antithesis

It is entirely possible that these locusts are the direct antithesis of the cherubim Ezekiel saw in chapter 1 of his book. For everything God has,

Satan has an evil and inferior duplicate. Satan has never had an original thought of his own, so he borrows from God. When we look closely at the description of these locusts and compare it to Ezekiel's vision, we see they are complete

opposites. The locust army is very likely comprised of fallen cherubim. They are most likely described as locusts because of the destructive role they play, not necessarily because of their physical appearance, which is described in Revelation 9:7 as "and the shapes of the locusts were like unto horses prepared unto battle."

As shown in *Cherubim Chariots* (Josh Peck), the cherubim seem to be an amalgamation of human and animal appearances. Other ancient cultures seem to have witnessed these things as well, such as the Lamassu and Shedu of ancient Assyria.[228] These beings were described as

having an animal body, such as a bull or a lion, with wings and a human head. In Ezekiel's vision of the cherubim, we see an opposite description: Ezekiel describes animal heads atop human-like, winged bodies. We also see in Ezekiel's vision that one of the faces is described as being half human, half lion, and bisected vertically. However, Revelation 9:7–8 states:

And the shapes of the locusts were like unto horses prepared unto battle; and on

their heads were as it were crowns like gold, and their faces were as the faces of men.

And they had hair as the hair of women, and their teeth were as the teeth of lions.

If they had faces of men, yet teeth of lions, it would suggest a half-human, half-lion face, but bisected horizontally rather than vertically. This could be another attribute to show these locusts are the antithesis of the heavenly cherubim Ezekiel witnessed.

Ezekiel described the heavenly cherubim as carrying the throne of God on top of them.

Revelation 9:11 states:

And they had a king over them, which is the angel of the bottomless pit, whose

name in the Hebrew tongue is Abaddon, but in the Greek tongue hath his name Apollyon.

The word “over” comes from the Greek word *epi,* which can mean “upon” as well as

represent a statement of authority.[229] There are times the Bible uses the word *epi* to describe something physically on top of something else without regard to authoritative position.[230] Much how the heavenly cherubim were carrying the true God over them, these fallen cherubim seem to be carrying their false god and king, Abaddon. This idea links us back to the first chapter of this book in which we explored the possible connections between CERN and Abaddon in ancient

history.

As pointed out in *Cherubim Chariots*, the ancient world likely had direct contact with fallen cherubim, though they called them things like *Lamassu* and *Shedu.* It is possible that the book of Revelation is prophesying a return of these fallen creatures. It’s also possible, if interdimensional contact is made through the use of gravitons, it will be either these fallen cherubim or the king over them that humanity will be in contact with.

As we saw in the first chapter of this book, the area where CERN is located today is

thought to have been dedicated to this same false god in ancient times. Perhaps that dedication will manifest itself in the near future. Given that, we may see a modern-day repeat of the tower of Babel and a fulfillment of Zechariah 5 in our near future.[231]

Chapter 14

The Clash of the Titans and God's Holy War

In the last string of pages, we noted Isaiah marking the end of time by destruction of Babylon (Iraq) and the return of terrible giants (Nephilim) when God commands a "ruler" to "open the gates," releasing giants to fulfill His wrath. What God did in Egypt when "He cast upon them the fierceness of His anger…by sending *evil angels* among them" (Psalm 78:49; emphasis added), he will do again. Yet, Isaiah's prophecy is additionally fascinating given that Nimrod, the designer of the Tower of Babel—the "gate of god"—was himself a Nephilim (*Gibborim;* see 1 Chronicles 1:10).

In *Cydonia: The Secret Chronicles of Mars*, David E. Flynn takes this a step further, connecting Nimrod's construction of the Tower of Babel to the rebel planet Mars: "Nimrod…a giant of the race of Nephilim…authored the plan for the tower…[and was] associated in myth with Nergal, the Babylonian god of Mars.… *The Tower of Babel was a tower to Mars*."[232]

On the same page of his astonishing book, Flynn points out:

Symbolism used by the mystery schools illuminated the writings of Italian poet Dante, who [also] wrote of the connections between the Tower of Babel, Giants and

Mars. Intriguingly, Dante identified Mars with Satan. *Paradiso Canto IX:127–142*:

Florence, the city founded by Mars, that Satan who first turned his back on his

Maker, and from whose envy such great grief has come, coins and spreads that accursed

lily flower, that has sent the sheep and lambs astray, since it has made a wolf of the

shepherd.…

The ancient Cabiri (*Gibborim*) who built Cyclopean walls and megalithic

fortresses took many forms, but they all originated from the same place. They came down

from heaven to the earth. According to ancient Sumerian myth, when Nergal the god of

Mars was ejected from heaven he descended with…demons.[233]

Thus not only was Nimrod a Nephilim, not only did he design the Tower of Babel ("gate

of god"), and not only was he associated with Mars and built the tower of Babel to the rebel prison planet, but he, like other giants, was *daimonic* (demonic) in origin. The significance of this cannot be overlooked. Babel was a *Nephilim gateway*, and it is prophesied to be the future location from which "gates" open and "giants" return.

Windows of Heaven, Gateways of Hell

How close to the surface of the earth is the dwelling place of angels? Of demons? Of God? I (Tom) ask this because human nature tends to place the physical (for want of a better term) location of these domains far out into space. Yet, what if the "heavens" are so close as to have been reached upon tall mountains or towers? The Nephilim had intimate knowledge of the

original planet earth before the heavens were closed up and before God no longer walked with man in the cool of the evening.

Did the Nephilim—as offspring of fallen angels—know something about the periphery of

Kosmos and/or the throne room of God that we don’t? Did they know that in some way these

locations are just above our heads? Is this why holy people throughout time have felt driven subconsciously to ascend mountains in search of God? Is this why scriptural and extrabiblical literature universally depicts metaphors of heaven attained upon elevated platforms—Jacob’s ladder, Quetzalcoatl’s ladder, the gods upon the Mount of Olympus, the feet of the returning Christ upon the Mount of Olives, Moses receiving the Law from God upon Sinai, and the

Watchers descending upon Mount Hermon? Is this why Nimrod the Nephilim built the tower of

Babel at a specific location so that its top would reach into “heaven?” Is that why, just prior to the stoning of Stephen in Acts 7:54–60, he was able to describe heaven in such close physical proximity when he said, “Behold, I see the heavens opened, and the Son of man standing on the right hand of God” (v. 56)?

Scientist Stan Deyo has done analysis of a Tower of Babel stele (stone slab monument

depicting a carving of the tower) with speculation about whether the original Tower of Babel was actually designed to facilitate reaching “the heavens” as indicated in the comments prior.

Was it a building whose top was high enough to allow higher-dimensional beings to descend

slowly while discharging voltage directly into the lower energy density universe? Deyo notes the uppermost portion of the stele seems to show a “bright” or burning circular area, while the edges of the tower layers themselves are smooth like a high voltage insulator, as if for dissipating electricity. Stan emphasizes that the analysis is inconclusive but interesting, given that beings who *descended* from heaven were typically accompanied by fire or lightning (electrical

discharge?), while beings who *ascend* from lower energy densities (regions) tend to cool the atmosphere, such as in the classic “ghost” entering a room. Ancient artwork that may support this theory is widespread throughout ancient times, including depictions of gods accompanied by fire.

One also cannot help but wonder if Freemasons involved in the design of United States

currency didn’t know something of the meaning of gods descending on towers when they placed a brilliant, all-seeing eye above the pyramid on the back of the dollar bill, or when similar initiates of Mystery Religion designed the Pentagon’s data mining service—the Information

Awareness Office. And did you ever wonder why the top stone of the Great Pyramid is not in place?

On the one hand, the idea that “heaven” is just above our heads could bring comfort, to

conceptualize God and His angels in such close proximity. On the other hand, this notion brings significance to the prophecies of Isaiah regarding earthly Babel-gates opening at the end of time during a period of war in Iraq when, according to the prophet, the earth will be invaded by destructive, emerging Nephilim.

Are *beings* even now pressing against “brass gates” of Kosmos, anticipating God’s

command for a “ruler” to open these gates?

(Kind of makes you wonder if NASA and DARPA’s work on developing a tower into

space made from carbon nanotubes, and a space elevator, is reverse engineering of technology recovered from Iraq or something needed for the return of the Sumerian gods!?)

When Daniel Fought the Gatekeeper

Earlier, we discussed the book of Daniel, chapter 10, when Gabriel appeared to say that "from the first day thou didst set thine heart to understand, and to chasten thyself before thy God, they words were heard, and I am come for thy words" (Daniel 10:12).

To revisit the question from earlier in our wrap-up: Why did it take Gabriel twenty-one

days to arrive? Because a powerful Persian influence/demon/fallen angel (identified in Persion theology as Ahriman) had opposed him, and it was not until Michael, the archangel, came to help was Gabriel free to continue his journey.

In the book of Daniel, the influence/demon/fallen angel is simply called "the prince of the kingdom of Persia" (Iraq/Iran). He was the Babel gatekeeper, as fictionalized in our book— *The*

Ahriman Gate.

God also revealed to Daniel (chapter 7) other types of earthly "kingdom" influences: the

Babylonian, the Medo-Persian, the Greek, and the Roman, each of which was mere human

agencies under the control of supernatural powers. The principality of the Medo-Persian

kingdom was depicted as a warmongering spirit seeking to dominate through military

aggression, while its predecessor Babylonia was characterized by "forces" pretending to the throne of God.

Throughout the Bible, spiritual Babylon is equivalent to the world system that is at

enmity with God. Babylon began at the Tower of Babel, where at the macro level Satan's

strategy to incarnate a one-world system was first attempted. It now appears that it will also end there, as the world hurdles toward a final climactic encounter with giants…and their "ruler."

Forerunner of the Giants?

Preceding Daniel's visit by Gabriel, a dream from Nebuchadnezzar, king of Babylon, gave Daniel insight concerning these kingdoms and the final "revived" empire that will ultimately provide the grand entry for the mother (*or should we say father?!*) of all Nephilim—the Antichrist of end-times prophecy. Daniel's prediction is amazing in light of the extraordinary references made in 2:43: "And whereas thou sawest iron mixed with miry clay, they shall mingle themselves with the seed of men: but they shall not cleave one to another, even as iron is not mixed with clay."

The personal pronoun "they," who "shall mingle themselves with the seed of men"

caused Chuck Missler and Mark Eastman, in their book *Alien Encounters,* to ask appropriately:

"Just what (or who) are 'mingling with the seed of men?' Who are these Non-seed? It staggers the mind to contemplate the potential significance of Daniel's passage and its implications for the future global governance."[234]

When Daniel's prophecy is coupled with Genesis 3, an incredible tenet emerges—that

*Satan has **seed**, and **it** is at enmity with Christ!*

And I will put enmity between thee and the woman, and between thy seed and her

seed; it shall bruise thy head, and thou shalt bruise his heel. (Genesis 3:15)

The word translated here as "seed" is the Hebrew word *zera,* which means "offspring, descendants, children."

Is Satan's "posterity" lurking behind gates, waiting for a final opportunity to mingle with human DNA, as in days of old? Is this the method by which the Nephilim will return? Is this, as noted earlier in this series concerning demoniality, the method by which Antichrist himself will be incarnated? If Genesis 6 is truly an account of rebel angels leaving their assigned habitation

and cohabiting with human females—out of which union mutant life forms were born—is it reasonable to assume that Satan, as a fallen angel, already has, or will be allowed, ability to copulate with a woman?

Let's take one last look at this blip from *The Ahriman Gate*:

That's correct. According to the Bible, the Antichrist will be "the son of

perdition," the male progeny of the Greek *apoleia*, or Apollyon. The implication couldn't be clearer—the Man of Sin will be the physical offspring of the destroyer demon, a

transgenic of the highest order.[235]

The Father of Nephilim and the Son of Perdition

Some believe that in the very near future a man of superior intelligence, wit, charm, and

diplomacy will descend from the clouds or otherwise emerge on the world scene as a savior. He will seemingly possess a transcendent wisdom that enables him to solve problems and offer

solutions to many of today's most perplexing issues. His popularity will be widespread, and his fans will include young and old, religious and non-religious, male and female. Talk show hosts will interview his colleagues, news anchors will cover his movements, scholars will applaud his uncanny ability at resolving what has escaped the rest of us, and the poor will bow down at his table. He will, in every human way, appeal to the best idea of society. But his profound

comprehension and irresistible presence will be the result of an invisible network of thousands of years of collective knowledge. He will represent the embodiment of a very old and

superintelligent spirit. As Jesus Christ was the “seed” of the woman, he will be the “seed” of the serpent (Genesis 3:15). Although his arrival in the form of a man was foretold by numerous Scriptures, the broad masses of the world will not recognize him as the ultimate transgenic incarnation—the “beast” of Revelation 13:1.

It’s been assumed for centuries that a prerequisite for the coming of the Antichrist would be the “revived” world order of Daniel’s prophecy—an umbrella under which national

boundaries dissolve, and ethnic groups, ideologies, religions, and economics from around the world, orchestrate a single and dominant sovereignty. Such a system will supposedly be free of religious and political extremes, and membership will tolerate the philosophical and cultural differences of its constituents. Except for minor nonconformity, war, intolerance, and hunger will be a thing of the past. At the head of the utopian administration, a single personality will surface.

He will appear to be a man of distinguished character, but will ultimately become “a king of fierce countenance” (Daniel 8:23). With imperious decree, he will facilitate a one-world

government, a universal religion, and global socialism. Those who refuse his New World Order will inevitably be imprisoned or destroyed, until at last he exalts himself “above all that is called God, or that is worshiped, so that he, as God, sitteth in the temple of God, showing himself that he is God” (2 Thessalonians 2:4).

For many years, the idea that such an “Orwellian” society would arise—where a one-

world government oversees the smallest details of our lives and where human liberties are

abandoned—was considered an anathema. The concept that rugged individualism could be

sacrificed for an anesthetized, universal harmony was repudiated by America's greatest minds.

Then, in the 1970s, things began to change. Following a call by Nelson Rockefeller for the creation of a "new world order," presidential candidate Jimmy Carter campaigned, saying, "We must replace balance-of-power politics with world-order politics."[236] Evidently he struck a chord with world leaders. During the 1980s, President George Bush Sr. continued the one-world dirge by announcing over national television that "a new world order" had arrived. Following the initial broadcast, President Bush addressed the Congress and made the additional comment:

What is at stake is more than one small country [Kuwait]; it is a big idea: a new world order, where diverse nations are drawn together in common cause to achieve the

universal aspirations of mankind—peace and security, freedom, and the rule of law. Such

is a world worthy of our struggle, and worthy of our children's future.[237]

Ever since the president's astonishing newscast, a parade of political and religious leaders has discharged a profusion of rhetoric aimed at implementing the goals of the New World Order.

Concurrent with the political aspects of the NWO is the syncretistic and spiritual goals of New Agers, Dominionists, some modern evangelicals and even the pope! The blending of politics and spirituality, such as is occurring in these movements, harmonizes perfectly with the ideas of an end-time marriage of government policy and religious creed as was prophesied in the Bible. To that end, the tools necessary for paganism's ultimate incarnation —the god-king of the Great Tribulation (Satan in the flesh)—are in place. The "gods" have been revived through modern mysticism. The pagan agenda of governing by "divine representation" is being constructed. The

governments of the world are uniting beneath a one-world banner, and the earth's masses stand at the brink of a decisive moment in time.

According to the writers of this book, this is the unfolding of an ancient scheme. At the

core of the conspiracy, a leader of indescribable brutality is scheduled to appear. He will make the combined depravities of Antiochus Epiphanes, Hitler, Stalin, and Genghis Khan—all of

whom were architypes of the Antichrist—look like *Pee Wee Herman's Playhouse*. He will raise his fist, "speaking great things…in blasphemy against God, to blaspheme his name, and his

tabernacle, and them that dwell in heaven" (Revelation 13:5–6). As he champions worship of the gods who comes through portals, he will cause "that as many as would not worship the image of the beast should be killed" (Revelation 13:15). "The King of Babylon," as he is called in Isaiah

14, will revive the Babylonian mystery religion—"the habitation of devils, and the hold of every foul spirit, and a cage of every unclean and hateful bird" where merchants of the earth trade in

"souls of men" and where "the blood of prophets, and of saints" is found (Revelation 18:2, 13, 24).

The book of Revelation details what follows the rise of Antichrist, culminating in

cataclysmic war called Armageddon, a time during which God Almighty judges the "gods" who

come through portals, including, we would assume, so-called Zeus, Apollo, Demeter, Isis, and others.

However futile, the *gods* will retaliate against the Almighty, and a war of indescribable intensity will occur. It will be fought on land and sea, in the

heavens above, and in the earth below, in the physical and spiritual worlds. It will include “Michael and his angels [fighting]

against the dragon; and the dragon [fighting] and his angels” (Revelation 12:7). Some humans will join the battle against God, calling on “idols of gold, and silver, and brass, and stone, and of wood” (Revelation 9:20) to convene their power against the Christian God, even uniting with

“unclean spirits like frogs…the spirits of *devils* working miracles, which go forth unto the kings of the earth…to gather them to the battle of that great day…[to] a place called in the Hebrew tongue Armageddon [“Mount Megiddo”]” (Revelation 16:13–14, 16). There, in the Valley of

Megiddo, the omnipotent Christ will utterly repel the forces of darkness and destroy the New World army. Blood will flow like rivers, and the fowl of the air will “eat the flesh of the mighty, and drink the blood of the princes of the earth” (Ezekiel 39:18). Besides Armageddon, battles will be fought in the Valley of Jehoshaphat and in the city of Jerusalem. Yet, the battle of Armageddon is the event that culminates the hostility between God Almighty and the lower gods that traverse portals.

Once before, Satan and his “god” spirits challenged Yahweh at Megiddo. They lost. On Mount Carmel, overlooking the Valley of Armageddon, the prophets of Baal dared the Hebrew

God to answer by fire. He did, and it looks like he will again. When he does, here is what the Bible says will happen:

And I saw the beast, and the kings of the earth, and their armies, gathered together

to make war against him that sat on the horse [Jesus], and against his army. And the beast was taken, and with him the false prophet that wrought miracles before him, with which

he deceived them that had received the mark of the beast, and them that worshipped his

image. These both were cast alive into a lake of fire burning with brimstone. And the

remnant were slain with the sword of him that sat upon the horse, which sword proceeded

out of his mouth: and all the fowls were filled with their flesh.… And I saw a great white throne, and him that sat on it, from whose face the earth and the heaven fled away: and

there was found no place [to hide]. And I saw the dead, small and great, stand before

God; and the books were opened: and another book was opened, which is the book of

life: and the dead were judged out of those things which were written in the books,

according to their works.… And whosoever was not found written in the book of life was

cast into the lake of fire. (Revelation 19:19–21; 20:11–12, 15)

A different destiny awaits the righteous following the battle of Armageddon:

And I saw heaven opened, and behold a white horse; and he that sat upon him was

called Faithful and True [Jesus], and in righteousness he doth judge and make war. His

eyes were as a flame of fire, and on his head were many crowns; and he had a name

written, that no man knew, but he himself. And he was clothed with a vesture dipped in

blood: and his name is called The Word of God. And the armies which were in heaven

followed him upon white horses, clothed in fine linen, white and clean. And out of his mouth goeth a sharp sword, that with it he should smite the nations: and he shall rule

them with a rod of iron: and he treadeth the winepress of the fierceness and wrath of

Almighty God. And he hath on his thigh a name written, KING OF KINGS, AND LORD of

LORDS.… And I saw a new heaven and a new earth: for the first heaven and the first earth

were passed away; and…I heard a great voice out of heaven saying, Behold, the

tabernacle of God is with men.… And God shall wipe away all tears from their eyes; and

there shall be no more death, neither sorrow, nor crying, neither shall there be any more

pain: for the former things are passed away. And he that sat upon the throne said…I will

give unto him that is athirst of the fountain of the water of life freely. He that overcometh shall inherit all things; and I will be his God, and he shall be my son [or daughter].

(Revelation 19:11–16; 20:1–7)

Conclusion

All of the things we looked at throughout this book are open to personal interpretation.

Regardless how we may interpret the facts, it is exceedingly important for us to keep informed as to what is happening in the world. We will need to provide answers if and when these things take place, but it is even better to inform people beforehand. We also know that we need not fear if we have security in Jesus Christ.

Part of a personal relationship with Jesus is having love for one another as believers. This is one of the most important skills we have a responsibility to learn today. Learning this skill could potentially have eternal benefits for those around us. Not learning this skill may very well have eternal consequences to those we come into contact with. Whether we may directly realize it or not, we are constantly influencing people and their opinions by the way we choose to behave around them.

We all have different jobs and different roles to play in God's eternal purposes. We are

not always going to agree with each other, but that does not give us license to be unloving, disrespectful, or ugly. In fact, if handled properly, some of the most enlightening and edifying

conversations we can ever have are with believers of differing opinions who chose to discuss and reason rather than argue.

1 Corinthians 12:12 states:

For as the body is one, and hath many members, and all the members of that one

body, being many, are one body: so also is Christ.

This shows how every believer in Jesus Christ is a part of the whole of the body. We are

all one entity, commonly referred to as the "church" or the "body of Christ," yet we are also all individuals and have different roles. First Corinthians 12:14–18 brings this into clearer focus by stating:

For the body is not one member, but many.

If the foot shall say, Because I am not the hand, I am not of the body; is it therefore not of the body?

And if the ear shall say, Because I am not the eye, I am not of the body; is it therefore not of the body?

If the whole body were an eye, where were the hearing? If the whole were hearing, where were the smelling?

But now hath God set the members every one of them in the body, as it hath pleased him.

Notice specifically it is God who sets the members in the body as it pleases Him. We

have no right as believers to downplay one job over another merely because it is different from our own. It is God's choice.

Also notice that this passage seems to say each member is going to be better at some things rather than others. Some members will have better information in different areas than others. For example, what information does an eye have about hearing? Virtually none. What information does an eye have about smelling? Again, virtually none. Now, how ridiculous would it be for the eye to determine which has better information about the respective roles of the ear and the nose? How would the eye be able to determine that? Quite simply, it couldn't. The same goes for members of the Church.

This is the reason this book is written in the manner presented. Throughout this book, you have had access to varying opinions on topics that are mysterious by nature. If we want to have a strong opinion, it is up to us to do the research and make an informed decision.

We cannot merely listen to and accept everything we are being told and expect to have

any kind of authority or foresight in these things. Rather, we need to take all opinions into consideration, figure out which ones line up best with established truth and Scripture while also admitting the limits of our own human understanding, give the whole thing up to God in prayer, and wait for his guidance and direction. One of the best things we can learn as believers is how to pray and wait. Pray for others, pray for ourselves, then wait on God for an answer.

Our hope in writing this book is for it to be a tool to get you started on your own journey of discovery. At the very least, we hope this has convinced you there is more than one way to look at these various issues and, many times, there are differing opinions that are just as valid as the ones we may choose to hold. We need to learn to be respectful and sensitive to others'

opinions on non-salvation issues if we hope to survive what might be ahead.

Above all, we need to learn to love one another. One of the most beautiful passages in all the Bible defines love for us so we can work on measuring up to it on a daily basis:

Love is patient and kind; love does not envy or boast; it is not arrogant or rude. It

does not insist on its own way; it is not irritable or resentful; it does not rejoice at

wrongdoing, but rejoices with the truth. Love bears all things, believes all things, hopes all things, endures all things.

Love never ends. (1 Corinthians 13:4–8, ESV)

Afterword by Sharon Gilbert

Being asked to write an afterword for a manuscript means that I get to read it before publication, which is always an honor and a blessing—and that is

especially true of this book. My degree is in biology, but along that journey, and afterward in graduate school, I had to study a lot of mathematics, chemistry, and physics, so getting an early peek at Tom Horn and Josh Peck's

wonderful new treatise about the science behind our Lord's creation has been a thrill.

Right now, if you're not accustomed to the language of quantum mechanics and the basic

science behind the research at the LHC, then you probably feel a bit like your brains have been scrambled. Don't worry, the topic leaves even seasoned physicists scratching their collective noggins, which then leads to arguments over issues as seemingly ludicrous as "how many angels can dance on the head of a pin," though physicists would then remind you that said angels only dance when someone is looking at them. Then, of course, the discoverer of the dancing angel phenomenon would probably name it after himself (or herself) and add descriptors of "cute,"

"twirling," "hopping," and perhaps even "sinister" (if the twirling is counterclockwise)—all of this leading to yet another branch of quantum physics dealing with dancing fields and entangled pairs of shoes.

Ah, but I digress.

The fact is—I loved this book. It strikes just the right balance of intense science, biblical reference, and prophetic warning. Josh and Tom are brilliant individuals, strong believers, and clear writers, but this is a topic that can defy clear description, so don't despair if you feel like you need to read this book again. In fact, I encourage it. Oh, and utilizing the *theory of relativity* wouldn't hurt a smidge either: Just ask any relative who is studying physics in school to read the book with you, and you might find yourself hosting a fascinating Bible study that reveals as much about our Savior and His design (for He holds all things together) as it does about the LHC

and quantum mechanics.

Tom and Josh have also been careful to avoid hyperbole when it comes to the possible

dangers involved in the LHC experiments, preferring to present a cogent, coherent, and *calm* set of facts while encouraging us—their readers—to discern for ourselves what the sum of all these parts might portend. Scientists are curious individuals, and they love to employ new, and often very expensive, toys to add to their collective library of knowledge. Sometimes these

experiments reveal new and amazing aspects of God's creation, but other times, they reveal ugly truths about mankind's conceit; which is not surprising given our fallen natures.

Ultimately, no matter how foolish mankind may be today, tomorrow, or a hundred years

hence (should the Lord tarry), we can rest easy upon the fact that God Almighty will only permit events to occur in His timing and according to His plans. Knowing this, we who believe in Him for our salvation must also trust in Him to run the universe. He's really quite good at it. And I suspect He's got some really great surprises in store, for He has promised that:

Eye hath not seen, nor ear heard, neither have entered into the heart of man, the

things which God hath prepared for them that love him. (1 Corinthians 2:9)

In other words, God's just warming up. How cool is that?

May the Lord bless and keep you this day and always,

—Sharon K. Gilbert, author of *The Armageddon Strain*

About the Authors

Tom Horn is a long-time television and radio personality, author, and publisher. He currently serves as the chief executive officer of

SkyWatchTV. At the dawn of the Internet, Horn launched two news services where coverage of latest-breaking news and information on cutting-edge

stories covering religion, prophecy, discovery, and the supernatural through in-depth

investigative reports led to his network of writers being referenced and interviewed by the biggest names in broadcasting, including: *LA Times* Syndicate, ABC, CBS, NBC, CNN, FOX, Time, the *New York Times*, the *Los Angeles Times*, *Chicago Tribune*, *Miami Herald*, BBC, MSNBC, Michael Savage, SciFi Channel, History Channel, Hannity & Colmes, Sid Roth's *It's Supernatural*, the *Jim Bakker Show*, Celebration Daystar TV, FaithTV, the *Harvest Show*, the *700 Club*, *Coast to Coast AM*, WorldNetDaily, NewsMax.com, White House correspondents, and dozens of other newsmagazines and press agencies around the globe. SkyWatchTV is the

consummation and "mothership" of Horn's several subsidiaries, including Defender Films and Defender Publishing.

Josh Peck is an avid researcher of fringe topics, host of *Into the Multiverse*, creator of *The Sharpening Report*, and author of Quantum Creation: Does the Supernatural Lurk in the Fourth

Dimension? and Cherubim Chariots: Exploring the Extradimensional Hypothesis. Josh uses his studies in quantum physics to explain phenomena surrounding mysterious topics like UFOs and CERN. Josh works in full-time ministry at SkywatchTV and has been featured on various TV

and radio outlets. Josh is married with three children. Find more about him at the links below: Homepage: SharpeningReport.com

Into the Multiverse: YouTube.com/IntoTheMultiverse

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[74] Jasher 27:7: “And Nimrod and two of his men that were with him came to the place where they were, when Esau started suddenly from his lurking place, and drew his sword, and hastened and ran to Nimrod and cut off his head.”

[75] http://en.wikipedia.org/wiki/Atepomarus.

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[79] http://en.wikipedia.org/wiki/Cernunnos.

[80] Miranda Green (1992), *Animals in Celtic Life and Myth* (Routledge), pp. 227–8.

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[82] http://en.wikipedia.org/wiki/Torc.

[83] It could also be noted that the LHC, much like a torc, is basically comprised of large, metal rings, as we will see later in this book.

[84] Miranda Green (1992), *Animals in Celtic Life and Myth*, p. 228.

[85] http://en.wikipedia.org/wiki/Cernunnos.

[86] " For in one hour so great riches is come to nought. And every shipmaster, and all the company in ships, and sailors, and as many as trade by sea, stood afar off, And cried when they saw the smoke of her burning, saying, What city is like unto this great city!" (Revelation 18:17–

18

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[88] http://en.wikipedia.org/wiki/Baphomet.

[89] Ibid.

[90] Raven Grimassi, *Hereditary Witchcraft: Secrets of the Old Religion*, p. 87–88.

[91] "In whom the god of this world hath blinded the minds of them which believe not, lest the light of the glorious gospel of Christ, who is the image

of God, should shine unto them.” (2

Corinthians 4:4)

[92] http://en.wikipedia.org/wiki/Shiva.

[93] http://en.wikipedia.org/wiki/Nataraja.

[94] http://en.wikipedia.org/wiki/Apasmara.

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[105] http://public.web.cern.ch/public/en/About/Name-en.html.

[106] James Trefil, *Science in World History*.

[107] http://home.web.cern.ch/about.

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[109] http://en.wikipedia.org/wiki/W_and_Z_bosons.

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[114] Ibid.

[115] http://public.web.cern.ch/Public/en/About/WebStory-en.html.

[116] A copy of this, the first website ever, created by Berners-Lee, is still available as a historical document at http://www.w3.org/History/19921103-hypertext/hypertext/WWW/TheProject.html.

[117] Don Lincoln, *The Large Hadron Collider*, p.113.

[118] Ibid. p.111.

[119] http://user.web.cern.ch/user/news/2009/090716.html.

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most-powerful-particle-collider

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[128] The actual depth varies from 150–450 feet depending on the location’s proximity to the Jura Mountains.

[129] Don Lincoln, *The Large Hadron Collider*, p. 24.

[130] “Linac” is short for “linear accelerator.” Linac 1 was CERN’s first linear accelerator but was decommissioned in 1992.

[131] Don Lincoln, *The Large Hadron Collider*, p. 51.

[132] http://home.web.cern.ch/about/experiments.

[133] Don Lincoln, *The Large Hadron Collider*, p. 86.

[134] We will get more into particle physics in part 2 of this book. For more on various aspects of particle physics, refer to *Quantum Creation* by Josh Peck .

[135] http://home.web.cern.ch/about/experiments/totem.

[136] http://home.web.cern.ch/about/experiments/lhcf.

[137] http://home.web.cern.ch/about/experiments/moedal.

[138] An ion is an atom or a molecule in which the total number of electrons is not equal to the total number of protons, giving the atom or molecule a net positive or negative electrical charge.

[139] http://en.wikipedia.org/wiki/Relativistic_Heavy_Ion_Collider.

[140] http://en.wikipedia.org/wiki/Tevatron.

[141] For more information on the ILC, visit www.linearcollider.org.

[142] http://en.wikipedia.org/wiki/International_Linear_Collider.

[143] To be clear, I (Josh Peck) am not claiming I have a "full grasp" on the discovery either, but I do believe with proper research and conveyance of information, we can get the right idea while being able to guard against misrepresentations.

[144] For an excellent book that does delve deep into these ideas, yet remains understandable, check out *The Particle at the End of the Universe* by Sean Carroll.

[145] One could say the Higgs boson carries the Higgs force and comprises the Higgs field; in a sense, the Higgs could be thought of as a fifth force, though it is usually recognized as an

"interaction."

[146] Although gravitons themselves have never been directly observed, gravitational waves have been detected. This is covered further in the last chapter of this book.

[147] In the 1800s, it was discovered that electricity and magnetism are two forms of the same force, now known as “electromagnetism.”

[148] David Harrison (2002), “Complementarity and the Copenhagen Interpretation of Quantum Mechanics,” UPSCALE (Dept. of Physics, U. of Toronto).

[149] For an excellent discussion on questions concerning quantum mechanics, check out *Measure for Measure: Quantum Physics and Reality*, a panel discussion hosted by physicist Brian Greene, which can be found at https://youtu.be/GdqC2bVLesQ at the time of writing this book.

[150] The term “fluctuation” is really just another way of saying “vibration”; thus, particles are really just vibrations of a field or combination of fields.

[151] Brian Greene, *The Hidden Reality,* p. 93.

[152]A classical field theory is a physical theory that predicts how one or more physical fields interact with matter through field equations. The term “classical field theory” is commonly reserved for describing those physical theories that describe electromagnetism and gravitation, two of the fundamental forces of nature. Theories that incorporate quantum mechanics are called quantum field theories; https://en.wikipedia.org/wiki/Classical_field_theory.

[153] Brian Greene, *The Hidden Reality,* p. 95

[154] For more on string theory and other areas of quantum mechanics, check out *Quantum Creation* by Josh Peck .

[155] Hebrews 11:3: “Through faith we understand that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear.”

[156] Sean Carroll, “The Particle at the End of the Universe,” presentation,

https://youtu.be/RwdY7Eqyguo.

[157] http://www.preposterousuniverse.com/blog/.

[158] Sean Carroll, *The Particle at the End of the Universe*, p. 19.

[159] Leon Lederman and Dick Teresi, *The God Particle: If the Universe Is the Answer, What Is the Question?* (2006).

[160] Keep in mind, this is from the view of most physicists; we Christians can fully recognize that every particle has to do with God since He was the one who created them. However, there is nothing especially “God-like” about the Higgs boson itself that would earn it the name of “God Particle.”

[161] Einstein’s famous equation, *E=mc2*, shows how much energy can be locked inside matter.

Even more, it shows that energy and mass are essentially the same thing. It is the conversion rate of mass to energy. Multiply mass (m) by the speed of light squared (c2) and that tells you the energy (E) of the mass.

[162] Sean Carroll, *The Particle at the End of the Universe*, p. 225.

[163] Ibid., p.172.

[164] When a particle “decays,” what is really happening is it loses energy to other quantum fields, so the energy of a proton can go into multiple fields at once, and as the proton disappears, other new particles can come into being. If the energy in transferred into the electromagnetic field and a photon is produced, for example, then it would be accurate to say the proton decayed into a photon.

[165] Due to *E=mc2*, electron-volts is the best measuring standard because it can describe mass and energy, which is why physicists will use an eV scale for just about everything they need to measure.

[166] The percentages do not add up to exactly 100 due to rounding of numbers.

[167] http://www.npr.org/2012/07/06/156380366/at-long-last-the-higgs-particle-maybe.

[168] http://www.merriam-webster.com/dictionary/zeptosecond.

[169] We will discuss antiparticles in more depth in the next chapter.

[170] Sean Carroll, *The Particle at the End of the Universe*, p.175.

[171] This is known as a "null hypothesis," which is the hypothesis derived from assuming nothing unexpected is happening to alter the experiment. In the case of the Higgs boson, the null

hypothesis of the data will be consistent with what would be expected if there is no Higgs boson present. Once the data is collected, it must be determined if it aligns with the null hypothesis and to what degree.

[172] Sean Carroll, *The Particle at the End of the Universe*, p. 185.

[173] This is why physicists will say the Higgs field *breaks symmetries*. If it weren't for the Higgs field, the paired particles would be identical and perfectly symmetrical (meaning identical properties). However, since the Higgs field interacts with particles differently, the symmetry is broken.

[174] Due to Heisenberg's Uncertainty Principle, there are minor quantum fluctuations happening all the time, but they are so minuscule that they are hardly worth considering. Thus, even taking this into consideration, the fields are still considered to be set at zero in empty space.

[175] This is not to be confused with the mass of the Higgs boson, which is 125 GeV.

[176] These are known as "flavor symmetries."

[177] Lisa Randall, *Warped Passages: Unraveling the Mysteries of the Universe's Hidden Dimensions*, p. 259.

[178] Ibid., p. 270.

[179] http://www.usnews.com/news/blogs/at-the-edge/2015/04/08/restarting-the-large-hadron-

collider-what-will-the-research-mean-for-science.

[180] Amazingly this is minimal compared to what might have been. The Superconducting Supercollider (SSC) was originally scheduled to begin operation in 1996. It was going to be built

in Texas and would have been able to run at an impressive 40 TeV. However, the politics and finances didn’t work out, so the US invested in the LHC instead.

[181] http://home.web.cern.ch/about/engineering/restarting-lhc-why-13-tev

[182] Sean Carroll, *The Particle at the End of the Universe*, p. 190–192.

[183] http://www.computerweekly.com/feature/CERNs-LHC-pioneers-quantum-leap-in-cloud-

computing.

[184] http://en.wikipedia.org/wiki/Quantum_computing.

[185] *Quantum Creation* and *Cherubim Chariots* by Josh Peck are both available at

www.SkyWatchTVstore.com.

[186] Edwin A. Abbot (1884), *Flatland: A Romance of Many Dimensions.*

[187] We will explore this line of thinking further in the next section on dark matter.

[188] http://www.nytimes.com/2015/03/05/science/quantum-computing-nature-google-uc-santa-

barbara.html.

[189] http://m.phys.org/news/2015-07-year-massless-particle-next-generation-electronics.html.

[190] Ibid.

[191] Lisa Randall, *Warped Passages*, p. 365.

[192] Ibid.

[193] The idea that extraspatial dimensions are most likely very large is likely, but not necessarily infinite. We will get into the reasons why the idea of infinity tends not to work well in normal, physical existence in a later chapter.

[194] For more on this, see *From Eternity to Here* by Sean Carroll.

[195] I write "loop" for lack of a better term. This would not be a true loop as both sides exist in the same space.

[196] http://philologos.org/__eb-nis/five.htm.

[197] Ibid.

[198] https://en.wikipedia.org/wiki/Rainbow_Gravity_theory.

[199] http://phys.org/news/2015-01-black-holes-space-theory.html.

[200] http://www.telegraph.co.uk/news/science/large-hadron-collider/11489442/Big-Bang-theory-

could-be-debunked-by-Large-Hadron-Collider.html.

[201] Exodus 20:11, for example, states: "For in six days the LORD made heaven and earth, the sea, and all that in them is, and rested the seventh day: wherefore the LORD blessed the sabbath day, and hallowed it."

[202] http://www.telegraph.co.uk/news/science/large-hadron-collider/11489442/Big-Bang-theory-

could-be-debunked-by-Large-Hadron-Collider.html.

[203] Ibid.

[204] Sean Carroll, *The Particle at the End of the Universe: Q&A,*

https://youtu.be/aom5SiHakGM.

[205] https://en.wikipedia.org/wiki/Static_universe.

[206] https://en.wikipedia.org/wiki/Static_universe#endnote_greatestblunder.

[207] What this cataclysm might turn out to be will be explored in chapter 10.

[208] Isaiah 46:10: "Declaring the end from the beginning, and from ancient times the things that are not yet done, saying, My counsel shall stand, and I will do all my pleasure."

[209] Interestingly enough, Jesus Christ makes this claim in Revelation 1:11, which states:

"Saying, I am Alpha and Omega, the first and the last." Yet earlier, God Himself made this claim, showing Jesus and God are one in the same, in Revelation 1:8, which states: "I am Alpha and Omega, the beginning and the ending, saith the Lord, which is, and which was, and which is to come, the Almighty." Notice also that it does not say God is *at* the beginning and the end. It says He *is* the beginning and the end.

[210] *Particles, Fields and The Future of Physics: A Lecture by Sean Carroll,*

https://youtu.be/gEKSpZPByD0.

[211] http://en.wikipedia.org/wiki/Electromagnetic_theories_of_consciousness.

[212] Johnjoe McFadden (2002), "Synchronous Firing and Its Influence on the Brain's

Electromagnetic Field: Evidence for an Electromagnetic Field Theory of Consciousness,"

Journal of Consciousness Stud ies 9 (4): 23–50.

[213] http://en.wikipedia.org/wiki/Quantum_brain_dynamics.

[214] http://en.wikipedia.org/wiki/Electromagnetic_theories_of_consciousness.

[215] http://www.quantumconsciousness.org/.

[216] This interview and more are included in *The Coming Technocalypse* mp3 audio series, available at www.SkyWatchTVstore.com.

[217] For more information on the singularity of the year 2045 and transhumanism, check out

http://www.2045.com/.

[218] *The Higgs Boson and the Fate of the Universe: Joseph Lykken* (SETITalks),

https://youtu.be/FyHp90wAiXI.

[219] In scientific notation, this represents a number 1 with one hundred zeros after it; a number far too big to comprehend, let alone print out in full in a book such as this.

[220] "Greek Lexicon :: G3772 (KJV)," Blue Letter Bible (Accessed July19, 2015),

http://www.blueletterbible.org/lang/Lexicon/Lexicon.cfm?Strongs=G3772&t=KJV.

[221] "Greek Lexicon :: G4747 (KJV)," Blue Letter Bible (Accessed July 19, 2015),

http://www.blueletterbible.org/lang/Lexicon/Lexicon.cfm?Strongs=G4747&t=KJV.

[222] Even in our current physical universe, black holes have a massive effect on time, theoretically even to the point of stopping time altogether on the other side of the event horizon.

[223] https://youtu.be/MiQnccPimes?t=33m18s.

[224] http://www.cnn.com/2016/02/11/us/gravitational-waves-feat/index.html.

[225] Ibid.

[226] "http://www.dailygalaxy.com/my_weblog/2016/02/the-warped-side-of-the-universe-

caltechs-kip-thorne-on-the-discovery-of-gravitational-waves-video.htm.

[227] "Greek Lexicon :: G2807 (KJV)," Blue Letter Bible (Accessed April 8, 2015),

http://www.blueletterbible.org/lang/Lexicon/Lexicon.cfm?Strongs=G2807&t=KJV.

[228] http://en.wikipedia.org/wiki/Lamassu.

[229] "Greek Lexicon :: G1909 (KJV)," Blue Letter Bible (Accessed April 8, 2015),

http://www.blueletterbible.org/lang/Lexicon/Lexicon.cfm?Strongs=G1909&t=KJV.

[230] Ibid.

[231] For more information on this, check out *Cherubim Chariots* by Josh Peck at

www.SkyWatchTVstore.com.

[232] David E. Flynn, *Cydonia: The Secret Chronicles of Mars* (End Time Thunder Publishers, Bozeman: MT; 2002), 105; emphasis added.

[233] Ibid.

[234] Chuck Missler and Mark Eastman, *Alien Encounters: The Secret Behind the UFO*

Phenomenon (Koinonia House, Inc., Coeur d'Alene: ID; 2003), 275.

[235] Thomas and Nita Horn, *The Ahriman Gate*, 327.

[236] President Jimmy Carter, as quoted by: Robert C. Johansen, *The National Interest and the Human Interest: An Analysis of U.S. Foreign Policy* (Princeton University Press, Princeton: NJ; 1980), 180.

[237] President George Bush, Sr., January 29, 1991, as quoted by: "Address Before a Joint Session of the Congress on the State of the Union," *The American Presidency Project*, last accessed August 18, 2016, http://www.presidency.ucsb.edu/ws/?pid=19253.